

FINAL REPORT
OF THE
THIRD REGULAR SETTLEMENT
OF THE
MIANWALI DISTRICT

BY
SARDAR GANDA SINGH, B.A., P.C.S.,
Extra Assistant Commissioner, In Charge, Settlement Operations.

1928.



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No. 2283-R.

FINANCIAL COMMISSIONERS' OFFICE :

Lahore, dated the 11th August 1930.

FROM

W. R. WILSON, Esq., I.C.S.,
*Secretary to Government, Punjab,
Revenue Department,*

To

THE JUNIOR SECRETARY TO THE
FINANCIAL COMMISSIONERS, PUNJAB.

SUBJECT :—*Final Settlement Report of the Mianwali district.*

SIR,

I AM directed to acknowledge receipt of the final report of the Third Regular Settlement of the Mianwali district by Sardar Sahib Sardar Ganda Singh, B.A., P.C.S., together with the reviews thereof by the Commissioner, Rawalpindi division, and the Financial Commissioner, Revenue. The Governor in Council accepts the Financial Commissioner's recommendations contained in paragraphs 2, 3 and 4 of his review, as to confirmation of the settlement, the method of assessment of wells not assessed at settlement, under the Thal system of assessment, and the duration of settlement, respectively.

2. The Governor in Council endorses the remarks of the Commissioner and the Financial Commissioner (Revenue) on the work of the Settlement Officer, Sardar Sahib Sardar Ganda Singh.

I have the honour to be,

SIR,

Your most obedient servant,

W. R. WILSON,

Revenue Secretary.



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Review of the Financial Commissioner (Revenue) on the Third Regular Settlement of the Mianwali district.

THE Financial Commissioner does not think it necessary to write a lengthy review of the final settlement report of the Mianwali district, as the extremely useful review of it by the Commissioner of Rawalpindi contains all the salient facts.

2. The whole of the district has not now been reassessed, as it was decided that the existing assessment in the Isa Khel tahsil should continue, though a special revision of the records of part of that tahsil was undertaken. It was only in the Bhakkar and Mianwali tahsils that settlement operations in their entirety were carried through.

The question of revision of records and remeasurements can be briefly disposed of. Remeasurements (paragraph 14 of the report) were found necessary to a greater extent than ordinary nowadays: and soils were classified (paragraph 16 of report) somewhat more minutely than is now usual.

The reassessment operations are described in paragraph 37 of the report and paragraph 6 of the Commissioner's review. The Settlement Officer, Sardar Sabib Sardar Ganda Singh, found a distinctly complicated system of assessment in the tract: for it has now been substituted for a certainly somewhat simpler system, though even it is not without its complications. The Financial Commissioner desires to emphasize that the portions of the district under fixed assessment, particularly the remote Khudri circle in Mianwali tahsil, and the Thal Kalan and Daggar circles in the Bhakkar tahsil should not receive less attention in the future than those under fluctuating assessment. Special attention is directed to the fact brought out in the second paragraph of Appendix VIII to the report that in the Thal circle immediate remissions, and not suspensions, of the demand should be given in bad years. This rule does not apply to the Khudri circle, in which suspensions of the demand in bad years should be given as usual in the province, recoveries being made later as circumstances permit.

The Commissioner's review tells of the reductions necessary in the assessments originally announced owing to the passing of the Land Revenue Amendment Act. The financial results of the settlement are, briefly, as follows:—

		<i>Former demand (paragraph 38 of report.)</i>	<i>New demand as reduced.</i>	<i>Remarks.</i>
		Rs.	Rs.	
Bhakkar tahsil	...	1,56,418	2,01,914	The increase was taken nearly altogether in the Thal Kalan circle, where <i>barani</i> cultivation had expanded very greatly (paragraph 24 of report).
Mianwali tahsil	...	1,92,152	2,30,721	

The demand, though still very moderate, considering the increase in cultivated area (as paragraph 40 of the report shows, the incidence per cultivated acre is now actually less than that of its predecessor, and the present figures have been still further reduced owing to the reduction made later), and well within the limits prescribed by the Land Revenue Amendment Act, is not, in the Financial Commissioner's opinion, unduly low for this poor and remote district, when the present general standard of assessment of the rich canal districts of the province is borne in mind. The new assessment may be undoubtedly confirmed by Government without the least hesitation.

3. The proposal made in paragraph 45 of the report, which has the Commissioner's support, that wells in the Thal Kalan, Daggar, and the upland portions of the Saadat Miani circles on which, for some reason, no assessment has yet been imposed, should, when fully at work, pay Rs. 12 each in the former circle, and Rs. 13 each in the Daggar and upland portions of the Saadat Miani circles is approved. The rates are annual and not crop rates, and will of course only be enforced when the protective period to which they are entitled has elapsed. The Financial Commissioner has ascertained that there are few, if any, such wells.

4. In the two tahsils which have been re-assessed in their entirety the new assessment should run for forty years, the term laid down in the Land Revenue Amendment Act. The period should commence from the harvest in which the new demand was introduced in each circle. No orders have yet been passed as to the period for which the present settlement of Isa Khel tahsil should be extended. As already said, that tahsil was not reassessed by Sardar Sahib Sardar Ganda Singh. The existing assessment in that tahsil, which was sanctioned for twenty years, runs from *kharif* 1907. The Financial Commissioner thinks it will be sufficient now to sanction its extension for a further period of twenty years, and recommends accordingly. If this recommendation be accepted, the existing assessment will run till *rabi* 1947.

In the concluding words of paragraph 46 of his report Sardar Sahib Sardar Ganda Singh recommends that "the assessment of an assessment circle should be subject to revision if and when irrigation is given to it from the projected Sind Sagar Canal." Unfortunately the Land Revenue Amendment Act gives no power to impose such a condition. In, however, what is now the remote probability that the Sind Sagar canal will come into existence in the next forty years, the difficulty can be then got over by applying a fair schedule of water rates, calculated according to the pitch of the assessment now imposed.

5. The Financial Commissioner was much impressed in a visit he paid to Mianwali two years ago with the difficulties of keeping the revenue records, and indeed all the revenue administration, of the district up to date, owing to the rigours of the climate, the long distances involved, and kindred considerations. He can only hope that future Collectors will spare no efforts in these important matters. In particular the Sub-Divisional Officer of Bhakkar, who is not overburdened with other work, should interest himself wholeheartedly in this important branch of his duties. Sub-Divisional Officers are of course supposed to discharge the duties of Revenue Assistants in their sub-divisions. The experience they thus gain is of the greatest value later to them as Collectors.

6. The Financial Commissioner cordially endorses the eulogies passed by the Commissioner on Sardar Sahib Sardar Ganda Singh's work.

C. A. H. TOWNSEND,

Financial Commissioner,

The 14th July 1930.

(Revenue).

Review by the Commissioner of the Rawalpindi division on the Final report of the 3rd Regular Settlement of the Mianwali district.

1. The Mianwali district, as at present constituted, consists of three tahsils, Mianwali, Bhakkar and Isakhel. This report is, for the purpose of assessment, confined to the two former. Certain portions of Isakhel were, however, included for the purpose of revision of records, assignments, etc., of which mention will be made hereafter. The physical features of the Mianwali and Bhakkar tahsils are easily summarised. The riverain area extends along the Indus about 141 miles, known locally as the *kacha*. This area depends for irrigation upon monsoon floods, assisted here and there by wells and *jhallars*. Next comes the *pakka*, extending from the river bank to higher ground. In the Mianwali tahsil this merges towards the north in the uneven country bordering on the Salt Range known as Khudri, and on the south into the Bhakkar Thal, consisting of the lower part of the sparsely populated sand hills. For communications the district depends mainly upon the railways, metalled roads being practically non-existent. Communication by rail is, however, satisfactory, and the railway stations are all centres of export. The river Indus itself can hardly be regarded as means of communication at all.

2. According to the natural divisions of the country, the assessment circles were formed at re-settlement as follows :—

Tahsil		Assessment circle.	
Bhakkar	Thal Kulan.
			Daggar.
			Pakka.
			Kacha.
			Khudri.
Mianwali	Pakka.
			Kacha.
			Sadat Miani.

Sadat Miani is an artificial circle, belonging geographically for the most part to the *kacha* tract of Mianwali. Little change has taken place since the last settlement in the means of irrigation. The construction of the Nammal dam has, however, changed the face of the Civil Station of Mianwali, which is now a green and well-watered oasis. Hill torrents, as in the past, give to the Khudri circle its character as the most favoured agricultural area in the district. Wells have increased in number (paragraph 4), but the average area matured has fallen throughout by 2 acres. This is due to a great increase in *barani* cultivation, but *barani* cultivation depends upon rainfall and the statistics in paragraph 5 of the report tell their own tale ; thus, while the average is 10·03 inches at Bhakkar and 12·59 at Mianwali, the range of fluctuation extends from 16·89 to 3·25 at Bhakkar and from 22·62 to 7·59 at Mianwali. Whereas a cycle of abundant rainfall results in great prosperity, a succession of bad years has the opposite effect. The means of irrigation in the district are, therefore, generally regarded as precarious.

3. The fiscal history of the district is dealt with by the Settlement Officer in chapter II of his report. The assessments now revised were introduced for 20 years from *kharif* 1903 in the Bhakkar tahsil and from *kharif* 1907 in the Mianwali and Isakhel tahsils. It will suffice to mention here only the figures of net increase, which are as follows :—

Tahsil.		Previous demand.	Assessment imposed.
		Rs.	Rs.
Bhakkar	..	1,39,287	1,62,813
Mianwali	...	1,20,152	1,59,575

Favoured by a general rise in prices, elasticity for fluctuating assessments in the riverain tract and Thal portion of the Mianwali tahsil, and the great extension of *barani* cultivation in the Bhakkar Thal, where assessments were fixed, the last settlement was evidently satisfactory. During the whole period of the settlement only Rs. 980 were remitted in Bhakkar and Rs. 337 in Mianwali.

4. Revision of records was undertaken in the Bhakkar tahsil and Sadat Miani circle of Mianwali tahsil in 1923, and in the rest of the latter and 29 villages of Isakhel tahsil in 1926. The soil was surveyed at the same time for the purpose of assessment (paragraph 16), and the following classifications adopted :—

Chahi, Sailab, Nahri, Chahi-Nahri, Abi, Barani, Chahi-Sailab, Naladar and Hail.

These terms explain themselves, but it is necessary to add that in the Khudri circle further sub-divisions of *Barani*, e.g., *Kasladar, Maira, Rakkar* and *Gar*, were also observed. A complete set of field maps is included in the settlement record, two copies of each, and the contents of the new standing record-of-rights for each village are comprehensive of all matters required by Standing Orders (paragraph 19). Other miscellaneous operations connected with the revision of records are adequately described in chapter III.

5. Important changes have occurred since re-assessment, which are set out in paragraph 24 of the Report. But for practical purposes the increase of the *barani* area is the most noticeable feature. In the Bhakkar tahsil *barani* increased from 25,058 acres to 225,330 acres, and in Mianwali from 127,946 acres to 292,216 acres. The increase is naturally most marked in the Thal areas. Corresponding changes in crops occurred simultaneously. The *Kharif* area fell from 31·9 to 18·5 % in the Bhakkar tahsil, and from 44 to 20·6 % in the Mianwali tahsil. The increase in *Rabi* cultivation was from 68·1 to 81·5 % in Bhakkar and from 56 to 79·4 % in the Mianwali tahsil during the period which has elapsed since the previous Settlement. There has been a rise in population which may be pronounced satisfactory, considering the uncertain means of agriculture. Actual figures are as follows :—

<i>Tahsils.</i>	1901.	1921.
Bhakkar	125,893	147,121
Mianwali	119,074	144,690

There has been a marked rise in the prices and profits from livestock (paragraph 27). The camel is, however, a declining asset. It is significant that the income from livestock is reckoned to be Rs. 5,74,690 or more than the new assessment. Statistics regarding alienations are without significance, but land values have tripled themselves since settlement. Commutation prices are set out in paragraph 31. They indicate an effective rise over the last settlement of about 40 %. Cultivation by owners has declined, except in the Kacha and Thal, owing to the spread of cultivation, while the area under tenants-at-will has increased in proportion. Rents have risen generally, especially in the Sadat Miani and Thal Kalan circles. Batai being the common form of rent in the tract, percentages of the total produce taken by the landlord on the various classes of soil were calculated for working out his net assets from the produce estimates, and one-third of such net assets was taken as the basis of assessment.

6. The principal changes introduced in the assessment are described in paragraph 37 of the Report. They are as follows :—

- (1) For the riverain portions of the Sadat Miani and *Kacha* circles there is a flat rate for crops in three classes.
- (2) The additional rate for *chahi-sailab* crops was abolished in certain circles.

- (3) Water melons were raised to a higher class in the riverain portion of the *Kacha* circle in the Mianwali tahsil.
- (4) The rate for fluctuating assessments on grazing land in the riverain portion of the *Kacha* circle of Mianwali tahsil was made uniform.

It will be seen that the present assessment is largely fluctuating, a system of fixed assessment surviving only in the Khudri Circle, on cultivated lands in the Powah of Bhakkar town, the *barani* and waste areas of the Thal Kalan and Daggar circles and upland portion of Sadat Miani, including the tax on camels and date trees in certain circles of the Bhakkar tahsil.

Elsewhere there is a fluctuating assessment by all round rates or crop rates on cultivation, by acreage rates on grazing in the whole riverain portion of the tract, and by the Thal system of assessment on *chahi* lands, in Thal Kalan and Daggar circles and the upland portion of Sadat Miani. Important powers are reserved to the Collector, *e.g.* (1) to reduce not lower than the minimum rate, in the case of crop rates, the rate for a village affected by river action, and (2) in the Thal Kalan, Daggar, and upland portion of the Sadat Miani circles, to remit arrears on such portion of *barani* and grazing assessment as he may think fit. The same concession applies to the fixed tax on camels. It may be remarked that the powers specified under (2) were utilised in 1929 after failure of the winter rains.

7. *Bhakkar tahsil assessment.*—The results in the Bhakkar tahsil are given in paragraph 38 of the report and are summarised below :—

Results of the assessment.

Assessment Circle.	Assessment actually imposed on cultivation.	Percentage of 1-3rd net assets absorbed.
	Rs.	
Kacha	56,398	85
Pakka	1,07,377	96
Daggar	14,614	56
Thal Kalan	33,901	98

By adding the grazing *Jama* demand, camel tax and assessment on date palms, the total assessment for the tahsil is as follows :—

Demand for selected years.	Demand imposed.	Increase per cent.
Rs. 1,56,418	Rs. 2,33,813	49

Mianwali tahsil assessment.—Similar figures for the Mianwali tahsil are set out in paragraph 39, and may be extracted as follows :—

Circle.	Assessment imposed on cultivation.	Percentage of 1-3rd net assets observed.
	Rs.	
Khudri	33,493	65
Pakka	1,44,869	54
Kacha	50,214	58
Sadat Miani	6,989	67

The assessment is particularly light in the *Pakka* and *Kacha* circles. By the addition of minor items the total assessment is as follows :—

Demand for selected years.	Demand imposed.	Increase per cent.
Rs. 1,92,152	Rs. 2,38,618	24

8. The distribution of rates is dealt with in paragraphs 42 and 44 of the Report. It will suffice to remark that it was done with careful regard to soil, crops matured, market conditions and other relevant criteria. Orders are required on the assessment of wells not assessed at settlement in Thal Kalan, Daggar and the upland portions of Sadat Mian circles (paragraph 45). It is proposed to raise the rates sanctioned at last Settlement for the Thal tract of the Dera Ismail Khan settlement by 33 per cent. and calculate the assessment at Rs. 12 in Thal Kalan and Rs. 13 in Daggar and Sadat Mian, for a well not assessed at settlement, but subsequently put into full working order.

9. The remainder of the report deals with certain miscellaneous matters, for example, dates of instalments (paragraph 47), progressive assessments in certain tracts (paragraph 49), of which more hereafter, protective leases for wells (paragraph 50), remission of fixed assessments on wells (paragraph 51), revenue assignments (paragraph 53), leases of Crown lands (paragraph 55), revision of the revenue staff (paragraph 57), *zaildars* and *inamdars* (paragraphs 58, 59). None of these matters call for particular comment.

10. The passage of the Land Revenue (Amendment) Act, 1928, introduced a new set of criteria for Land Revenue assessments, and as the Mianwali settlement was one of those to be governed by that Act, a further revision of the assessment became necessary in the course of the year 1928. The principles underlying the new revision may be briefly stated as follows :—

1. The land revenue shall not in the case of any assessment circle exceed 1/4th of the estimated money value of the net assets of such assessment circle (section 4 of the Punjab Land Revenue (Amendment) Act,).
2. The average rate of incidence shall not exceed the rate of incidence of the land revenue imposed at the last previous assessment by more than 1/4th (section 7 of the Punjab Land Revenue (Amendment) Act,).
3. The rate of incidence of the assessment imposed on any estate shall not exceed the rate of incidence of the last previous assessment on that estate by more than 2/3rd (section 7 of the Punjab Land Revenue Amendment Act).

Test No. 3 is to be dealt with in the light of rule 31 of the draft rules published with Punjab Government Revenue Department notification No. 4865-R., dated the 21st September 1929.

Proposals were submitted accordingly by the Deputy Commissioner, Khan Bahadur Malik Zaman Mehdi Khan, in consultation with the late Settlement Officer, Sardar Sahib Sardar Ganda Singh, then Revenue Assistant in the district. Applying the first two tests, it was found that only

Final Report of the Third Regular Settlement of the Mianwali District

CHAPTER I.—GENERAL DESCRIPTION.

1. The Mianwali District as constituted by Gazette Notification No. 211, dated 9th February 1909, consists of the three Tahsils, Bhakkar, Mianwali and Isakhel, comprising 441 estates. It is bounded on the east by Jhang, Shahpur and Attock Districts, on the north by Attock and Kohat Districts, on the west by Bannun and Dera Ismail Khan Districts and on the south by Muzaffargarh and Jhang Districts. The greatest length from north to south is about 140 miles and the greatest breadth from east to west is 68 miles. The total area of the district is 5,373 square miles. Isa Khel with an area of 715 square miles is a trans-Indus tahsil. As far as the revision of the Assessment is concerned, this tahsil was left out in compliance with letter No. 2813-R., dated 18th November 1926, from Senior Secretary to the Financial Commissioners and Deputy Secretary to Government, Punjab. Revision of Records of Riverain portion and revision of Assignments, Zaildari and Inamdari arrangements, etc., of that tahsil were, however, taken along with the rest of the district. Mention of Isa Khel in this report, therefore, will generally appear in connection with what has been done for that tahsil in this Settlement.

2. The river and the hills form important features of the district and both physically and from an agricultural point of view divide it into four parts;

Physical features and natural divisions.

1. *Riverain*.—It is locally known sometimes as Kacha and sometimes as Kachhi. It commences from where the Indus enters the district and after traversing all the three tahsils ends where the river leaves the district in the south. On its east lies the left high bank of the river, and on its west the right bank up to the southern extremity of Isa Khel Tahsil and eastern boundary of Dera Ismail Khan District for the remaining portion. It is flat and intersected by creeks which are flooded during the Monsoon season when the Indus rises. Cultivation is dependent upon moisture received from the river flood assisted in places by wells and jhallars. Small embankments are also constructed across the channels to ensure irrigation of the higher portions.

2. *The Bhangi Khel*.—It is a hilly tract which lies at the extreme north, entirely in Isa Khel Tahsil.

3. *Khudri*.—It is also named sometimes "Pakhar", sometimes "Utrad", and sometimes "Awankari". It consists of uneven and ravine eaten country, and extends from the Dhak Section of the Salt Range to the north-eastern limit of the tract. It entirely falls in Mianwali Tahsil and, as regards rainfall, is the most favoured part in the tract. The drainage water from the hills in the neighbourhood does immense good to the cultivation. The wells here are most easily workable as water in them is usually fairly near the surface, though the supply is not always reliable.

4. *The Thal*.—It is sometimes called "Pakka" and extends from the river bank up to the foot of the hills and consists of sand hills of varying dimensions. These sand hills are more conspicuous and closer in Bhakkar Tahsil, especially in its east and south. It is in a portion of this part that small canals taking from the Kurram river irrigate the lands.

3. The Assessment Circles that were formed at last Settlement, more or less followed the natural divisions. No action has been taken as regards Isa Khel Tahsil in this Settlement. For the remaining tahsils the Assessment Circles have been retained in this Settlement with this exception that the twelve Sadat Miani villages that after the last Settlement were transferred from

Assessment Circles.

Bhakkar Tahsil to Mianwali Tahsil have been formed into a separate Assessment Circle to be called the Sadat Miani Assessment Circle. Thus the district is now divided into twelve Assessment Circles mentioned below :

TAHSIL BHAKKAR.

Thal Kalan.—It occupies the whole of the eastern portion of the Thal in the Tahsil.

Daggur.—It consists of the remaining portion of the Thal part and lies to the west of Thal Kalan

Pakka.—It lies in the riverain and is separated from the Daggur by the left high bank of the Indus.

Kacha.—Falls in the riverain and lies to the west and north of the Pakka circle.

TAHSIL MIANWALI.

Sadat Miani.—It consists of the 12 Sadat Miani villages transferred from Bhakkar Tahsil. With the exception of portions of two villages falling in the Thal it lies in the riverain.

Kacha.—It comprises the rest of the riverain part with a portion of the Thal under such estates as lie partly above the high bank and partly below it.

Pakka.—It comprises the remaining portion of the Thal part.

Khudri.—It corresponds exactly to the Khudri part.

TAHSIL ISA KHEL.

Bhangi Khel.—It comprises the whole of the Bhangi Khel part.

Kacha.—It comprises the whole of the riverain part with a portion of the Thal under such estates as lie partly above the high bank and partly below it.

Nahri.—A portion of the Thal which is irrigated by the canals from the Kurram.

Pakka.—It comprises the remaining portion of the Thal part.

4. (a) *Canals.* In the tract under re-assessment, there was no canal at last Settlement. Since then a dam has been constructed across a narrow gorge in Nammal hills in Mianwali Tahsil for storing water that comes down abundantly during rains. The water thus collected is turned to irrigating fields by means of a regular canal known as Nammal which after a course of only 16 miles terminates in Wattakhel. It matures only *Rabi* crops except in the case of floods when water is also supplied for *Khurif*. Any surplus from the water allowed for drinking purposes is also used for *Kharif* crops in Civil Station Mianwali.

(b) *Hill Torrents.*—Lands on both sides of the Dhak Section of the Salt Range receive, in addition to local rainfall, drainage water from the hills through hill torrents which bring down very considerable quantities of water immediately after rain.

(c) *Wells.*—Some statistics regarding wells are given below :—

Tahsil.	Particulars.	NUMBER OF WELLS		Total.	Average annual matured area per well.
		In use.	Out of use		
Bhakkar	Settlement	1,823	313	2,136	16
	Average selected years	2,495	255	2,753	14
Mianwali	Settlement	487	17	504	7
	Average selected years	533	126	659	5

It would appear that there has been a considerable increase in the number of wells. This increase has been shared in all parts of the tract excepting the riverain of Mianwali Tahsil. Decrease has been brought about in the area matured per well and this decrease has been most in the upland portion of Mianwali Tahsil and northern portion of Thal part of Bhakkar Tahsil. These conditions are the result of :—

(a) Much greater attention being paid to *barani* cultivation; and

(b) The expenses of *chahi* cultivation being out of proportion to the increase which it brings on the profits.

(c) *Creeks and Jhallars*.—The river especially in Bhakkar Tahsil is intersected by numerous creeks which are usually flooded during the Monsoon season when the Indus rises. Small embankments are built across the channels in order to ensure irrigation of the higher portions.

For purposes of irrigation jhallars are also constructed at various places on the creeks.

5. The average rainfall since Settlement for each of the five rain gauges of the district is given below :—

Rainfall.

<i>Sokesar.</i>	<i>Nammal.</i>	<i>Mianwali.</i>	<i>Isa Khel.</i>	<i>Bhakkar.</i>
24.84	13.96	12.59	10.18	10.07

It would appear that north and east get more rain than south and west. The rainfall is very variable not only from place to place but from year to year as would appear from the following table which gives the maximum and minimum rainfall for each gauge in the period of which averages are taken :—

Rain gauge.	Maximum.		Minimum.	
	Year	Inches	Year	Inches
Bhakkar	1908-09	16.8	1915-16	3.25
Mianwali	1914-15	22.62	1918-19	7.59
Isa Khel	1908-09	15.13	1920-21	3.91

Rainfall is heaviest in July and August, but September rains which are very important for ploughings of *Rabi* crops, that cover more than $\frac{3}{4}$ ths of the matured area in the tract are very uncertain, especially in the south of the tract. Winter rains, which in the first half, materially affect the sowings of *Rabi* crops in the Thal and in the second half, their yield in the whole of the tract are also deficient and precarious. The tract is mostly dependent on rainfall in one way or another, and it is fortunate that the major portion of its part under cultivation has a light and sandy soil which will produce a crop even with the small rain if it is timely.

6. The tract under reassessment is fairly well served by railways, being in direct connection with Karachi, Lahore, Rawalpindi, and Peshawar by Sind Sagar and Mari Attock branches of the North-Western Railway. The Kala Bagh-Bannun branch runs through the heart of Isa Kel Tahsil and makes Bannun within an easy reach. The Malakwal-Shorkot branch running on the other side of the Jhelum is conveniently accessible to the villages in the south-east.

The only metalled roads in the tract are :—

- (i) The road running from Mianwali to Tarutta *via* Musakhel.
- (ii) Short stretches within the Municipal limits of towns Mianwali and Bhakkar.
- (iii) The road connecting Bhakkar with Jhang, which was neglected for some time, but is being improved now,

There are several tracks which connect villages with the railway stations but are unfit for wheeled traffic.

In addition to the markets at the head-quarters of the tahsils, every railway station in the tract is a centre of export. There is also some export of gram by boat down the Indus. Some big villages in the interior of the Thal, though not railway stations, are trade centres of importance.

CHAPTER II.—FISCAL HISTORY.

7. What little is known of the revenue system in the tract before annexation will be found in paragraph 9 of the Final Report of the last Settlement. In Mianwali Tahsil, the land revenue consisted generally of $\frac{1}{4}$ th (although a good deal less was taken) of the gross produce commuted into cash, together with small cesses such as *Nazrana* (Rs. 2 to Rs. 5 per plough) and *Kamiana* (a house tax on all non-agriculturists). The outturn was generally estimated by appraisement.

The Bhakkar Tahsil under the Sikh rule was a part of the province of Multan. A cash assessment was charged in the Thal on the basis that an ordinary well should pay Rs. 5 at *Kharif* and Rs. 7 at *Rabi*. In good seasons fees such as *Nazar Muqadam* or *Shukrana* were imposed. The cattle paid "Tirni Rasan" and the camels "Tirni Shutrān". In the riverain, the produce was weighed and Government share was given back to the cultivator at a price fixed by himself. *Zabtiāna* and other cesses were levied where necessary. Tobacco, cotton and sugar were assessed at *Zabti* rates.

8. After the annexation, the system of collecting the revenue by appraisement of the produce was followed in Isa Khel Tahsil and cash assessments were introduced in Mianwali Tahsil. These arrangements continued till their first summary settlement. The years of summary settlements, the names of officers who conducted them and the revenue demand imposed are given in the table below:—

TAHSIL.	BHAKKAR.			MIANWALI.			ISA KHEL.	
	I	II	III	I	II		I	II
Detail of Summary Settlements.	1850	1853-55	1856-57	1853-54	1863-64	1860-61	1854-55	1857-58
Name of the Officer who conducted the Summary Settlement.	Captain Hollings.	Mr. D. Simson.	Captain MacKenzie.	Deputy Commissioner, Jhelum.	Mr. D. Simson.	Mr. Cowan.	Captain Patras and Smyley.	Major Nicholson.
Amount of the revenue demand imposed.	Rs. 95,945	Rs. 1,12,139	Rs. 95,117	Rs. 1,26,641	Rs. 1,37,148	Rs. 25,915	Rs. 37,761	

9. The first regular settlements were commenced in 1872 by Mr. Tucker in Bhakkar Tahsil and by Mr. Thorburn in Mianwali and Isa Khel Tahsils. The new assessments were introduced in Bhakkar in 1877-78 and in the

remaining two Tahsils in Rabi 1879. In the former Tahsil the share of Government was fixed arbitrarily as no actual rent rates were available, while in the latter two Tahsils assessments were based on half net assets standard. Throughout the tract, the riverain was placed under the fluctuating assessment with rates for cultivation varying from village to village (sanction for Tahsils Mianwali and Isa Khel was, however, eventually received for uniform rates in all the villages), and the remaining portion under the fixed assessment. These assessments gave reduction of 20 per cent. in Mianwali and increase of 49 per cent. in Isa Khel as compared with the assessments of the Second Summary settlement, and enhanced the revenue demand of the previous five years in Bhakkar Tahsil by 29 per cent. As far as riverain is concerned these assessments were light in the Bhakkar Tahsil, but not so in the rest of the tract. As regards the upland portion they broke down completely in the former but were considered fair in the latter.

10. The last or the second regular settlement in Bhakkar Tahsil was started by Captain Crosthwaite in 1898 and assessments were made by himself in the riverain and by Mr. (Now Sir Malcolm) Hailey in the Thal. It was, however, concluded by Pandit (Now Rai Bahadur Raja) Hari Kishan, Kaul, who had already been placed in charge of the 1st revised settlement of Mianwali and Isa Khel Tahsils in 1903. New assessments were introduced for twenty years with effect from *Kharif* 1903 in the former Tahsil and *Kharif* 1907, in the latter two Tahsils. The assessments were based on the standard of half net assets deduced from *batai* rates, materials for which were sufficient everywhere excepting the Thal portion of Bhakkar Tahsil. Excluding the date palms and also a small portion known as Powah close to Bhakkar town which were placed under fixed assessment, the whole of the riverain was given fluctuating assessment by crop rates. For purposes of assessment crops were divided into three classes.

The rates varied from village to village for all classes excepting second class crops in Bhakkar and third class in the whole of the tract for which rates were uniform throughout. The I class *Chahi Sailab* crops on certain rich wells were given an additional rate varying from well to well.

During the currency of the Settlement no rate could be raised, but it was provided that the Collector had a power with the Commissioner's sanction to reduce the rate fixed for any village or the additional rate fixed for a well, if the land or the well showed any sign of permanent deterioration.

The rate for assessment on grazing lands was uniform for all the villages in Bhakkar Tahsil, while it varied from village to village in the remaining two Tahsils, in which the assessment was also subject to certain restrictions.

In the Thal portion of Bhakkar Tahsil and Sadat Miani circle of Mianwali Tahsil fixed assessment was retained for *barani* cultivation and waste. The fixed amount on *barani* lands was lumped together with the grazing assessment. The *barani* lands were to be assessed at 4 annas per acre of crops every harvest and the amount so recovered was to be credited towards the grazing assessment in each village, the balance being recovered from the cattle. The Collector had a power subject to the control of the Commissioner, to remit in a year of drought or murrain, such portion of the maximum fixed demand as he thought necessary. The tax on camels was separately fixed and was to be leased by *Days*, (Groups of villages). The well lands were placed under a special system of assessment. According to this system the well or share in the well, was treated as the unit for purposes of collection. The assessment of every undivided well, and of every holding in a divided well, whether under cultivation or not, had been fixed and was to be paid whenever half-an-acre or more of land in a holding or an acre or more in an undivided well, was sown as *Chahi* in one year. Unpartitioned wells were to receive a proportionate remission of the demand if $\frac{1}{4}$ th, $\frac{1}{3}$ rd, $\frac{1}{2}$, $\frac{2}{3}$ rd and $\frac{3}{4}$ ths fell out of cultivation.

In the Thal part of Mianwali and Isa Khel Tahsils excluding five villages of Nahri circle and one village of the Pakka circle of the latter Tahsil entirely fluctuating assessment was introduced. An all round rate per acre

of matured crops of whatever class or kind was fixed for every village (1) for all *barani* lands and (2) for all *nahri* lands (where there was *nahri* cultivation). Such rates varied from village to village. An additional rate was also fixed for *chahi*, *abi*, *naledar* and *hail*. No grazing *jama* was imposed.

The *Khudri* circle of Mianwali Tahsil and the Bhangi Khel circle, the five villages of Nahri circle and one village of Pakka circle in Isa Khel Tahsil were allowed to retain fixed assessment on cultivation. The fixed grazing *jama* was imposed only on the hill area of the *Khudri* circle, while in the uplands of Isa Khel Tahsil there was allowed continuance of camel *tirni* to be levied and leased by annual auction.

A rate of Rs 5 per water mill was sanctioned to be charged when the mill was at work.

11. The rates sanctioned at last settlement for each circle are shown in Appendix II. The fluctuating crop rates actually adopted for the first class crops in the riverain varied in Bhakkar Tahsil between Re. 1-4-0 and Re. 1-10-0 and between Re. 1-2-0 and Re. 1-8-0 for the Pakka and Kacha Circles, respectively, in the Sadat Miani Circle of Mianwali Tahsil between Re. 1-2-0 and Re. 1-6-0 and in Isa Khel Tahsil and remaining portion of Mianwali Tahsil between Re. 1-6-0 and Re. 1-10-0. The second class crop rates actually adopted in the last mentioned two Tahsils varied between annas 14 and Re. 1. The additional rate for *chahi sailab* was nowhere actually imposed except (1) in the Pakka circle of Bhakkar Tahsil where it varied between annas 2 and 4 per acre and (2) in the Kacha Circle of Mianwali Tahsil where it varied between annas 4 and 8.

The assessment imposed on cultivation is compared below with the previous demand. The percentage of half net assets absorbed is also exhibited.

1	2	3	4	5
Tract.	Previous demand.	Assessment imposed.	Half-net assets.	Percentage of 3 on 4.
	Rs.	Rs.	Rs.	
Bhakkar Tahsil including Sadat Miani villages ..	1,39,287	1,62,813	1,93,927	88
Mianwali Tahsil excluding Sadat Miani villages ..	1,20,152	1,59,575	2,71,374	89
Isa Khel	58,926	74,747	1,15,174	65

The incidence of the imposed demand fell at annas 15-8, annas 15-9 and Re. 1-0-2 per acre matured in Tahsils Bhakkar, Mianwali and Isa Khel, respectively.

12. The elasticity provided by the fluctuating factor coupled with the rise of prices in agricultural produce and the great extension in the Thal of Bhakkar Tahsil of *barani* cultivation which was under fixed *Jama* that could not be raised, has enabled owners to pay the revenue without the least inconvenience. The contingency of suspension and remission of land revenue on a large scale never arose. I give below the figures of suspensions and remissions during the whole period of the Settlement.

Tahsil.	Suspensions.	Remission.
	Rs.	Rs.
Bhakkar ... ..	...	980
Mianwali	16,231	337
Isa Khel ... ..	...	...

The Settlement worked easily and well.

CHAPTER III.—REVISION OF MAPS AND RECORDS.

13. Special revision of the Records of Rights was ordered by Government in September 1923 in Bhakkar Tahsil and Sadat Miani villages of Mianwali Tahsil, and in January 1926 in the remaining part of the latter and also in Isa Khel Tahsil. Thus the whole District was not taken up at one time. Later on, in Senior Secretary to Financial Commissioners and Deputy Secretary to Government, Punjab, Revenue Department letter No. 2813-R., dated the 18th November 1926, instructions were received to the effect that no regular settlement operations were to be undertaken for the Isa Khel Tahsil. Remeasurements had, however, already been taken up in such estates of that Tahils as wholly or partly lie in the riverain. It is, therefore, only in these estates, numbering 29, of that tahsil that revision of records has been carried out in this settlement. In its remaining portion, in compliance with Senior Secretary to Financial Commissioners and Deputy Secretary to Government, Punjab, Revenue Department, No. 669-R., dated 17th March 1927, the existing records are being set right on ordinary lines under supervision of Deputy Commissioner, the revision work of each village being taken up in the year when its quadrennial *Jamabandi* is to be prepared. I, as in charge of Settlement Operations, Bhakkar, joined on 8th September 1923, but the staff took some-time in joining. A considerable time was taken in preparing the Janch partial files with a view to ascertain whether remeasurement was necessary or map correction would do. The Patwari and Kanungo staff which was weak had also to be trained.

Regular Settlement Operations in Mianwali Tahsil were started with effect from April 1926 and due to climatic conditions it was not possible to employ the whole temporary staff on the field work as would have been done if the start had been made in the cold weather. Throughout the Settlement efforts were made to ensure that Record work should keep pace with Mapping. The Record work, however, was completed later for the riverain villages for which remeasurements were based on traverse stations laid out by the Survey Department, as it was essential to complete Paimaish on the spot before the floods arrived and removed the Chandas.

14. Remeasurements were to be carried out, in the tract directly subject to river action, on the basis of the Chandas fixed on the ground by the Riverain party survey of India, according to general programme, approved by Financial Commissioner. The old maps in the remaining portions were tested, in the manner prescribed by Appendix XXI of the Settlement Manual, as each Tahsil was taken in hand. The maps of Thal circles of Bhakkar Tahsil were found entirely out of date and wholly unreliable. Similarly in Mianwali, map correction was not possible in the southern portion of the Thal, where enormous extension had taken place in cultivation, and in the northern hilly portion of the Khudri circle which was not remeasured at last settlement. For quite accurate remeasurements in the hilly portion the assistance of the Survey Department was also considered necessary. In the remaining portion of Mianwali Tahsil also maps could not be easily followed, because the Patwaris had not prepared the *Tatima Shajras* and corrected the maps properly at quadrennial attestations but there were found identifiable permanent marks sufficient in number on the basis of which *Tarmim* work was possible though with difficulty.

In the whole of the Thal south of Kundian-Khushab Railway line there already existed a scientific basis for remeasurements on the common base line in the shape of 10 acre rectangles of which the corners had been marked with stones.

These facts were reported to the Financial Commissioner. Opportunity was also taken to propose that in cases in which fields separately located and held in proprietary rights in Bhakkar Thal had been amalgamated since settlement with *Shamilat* lands on all sides and could not be demarcated due to the old maps being inaccurate, permission might be given

to plot such fields on the new maps according to what was pointed out or agreed to by the proprietors, provided that in the matter of shape and dimensions the old map was strictly followed. Sanction to the proposals made was received in Senior Secretary to Financial Commissioners letters Nos. 92-1-23-4-8442, dated 23rd June 1924, and 2534-R., dated 21st October 1926. In Junior Secretary's letter No. 1104-R. (S.), dated 18th September 1926, to the address of the Director, Frontier Circle, Survey of India, the Financial Commissioner, however, did not approve of the assistance being taken from the Survey of India. The following table shows to what extent remeasurement was actually done :—

Tahsil.	REMEASURED.					PARTLY REMEASURED				
	With the help of					With help of traverse data supplied by the Survey Department.	By the square system.			
	10 acre rectangles.	Plane table.	Traverse data supplied by the Survey Department.	The square system.	Partly 10 acres rectangles and partly the traverse data supplied by the Survey Department.					
Bakkar ...	102	...	37	...	...	14	1	91	245	
Mianwali ...	18	4	63	1	7	...	...	36	180	
Isa Khei ...	...	...	29*	...	...	...	...	...	*29	

Only these villages were taken up in this settlement.

Unit of measurement is a *karam* which is equal to $5\frac{1}{2}$ feet.

15. On my proposal, for *Killabandi* in the southern portion of the Thal of Mianwali, Financial Commissioner's sanction was received in his Junior Secretary's No. 2049-R., dated 4th August 1926, but as far as proprietary lands are concerned, it is only in village Harnoli, and Rakh Harnoli Gharbi, in which it was possible to actually carry it out.

16. The classification of soils, for purposes of assessment and record in the measurement papers, in the tract under re-assessment, was based on the source of irrigation except in the case of *barani* in Mianwali Tahsil, which was subdivided according to physical distinctions. The following classes for cultivated lands were adopted :—

Chahi.—Land which has received irrigation from a well during the year of measurement or received such irrigation for two harvests during the last four years, provided that—

- (a) the well still exists and is fit for use, and
- (b) also that the land does not come within the definition of *chahi sarlab* given below.

Sailab.—Land receiving moisture from the river. This class also includes the land which in addition to receiving such moisture is also irrigated by means of water cuts (*Kasis*) from natural streams or artificial nullahs through which there flows water percolated in pools and "*dhands*"

Chahi Sailab.—Sailab land irrigated by well or lift from river or a creek.

Nahri.—Land irrigated from a canal.

Chahi Nahri.—Chahi land which also receives irrigation from a canal.

Abi.—Land irrigated from perennial hill streams.

Barani.—Land which depends on local rain only and is not included in any of the above mentioned classes. This class is sub-divided into the following :—

Naledar.—Land which receives hill torrent water.

Kasledar.—Land which receives the drainage water of higher lying waste besides its own rainfall.

Maira.—Level lands consisting of any admixture of good loam and sand depending upon its own rainfall.

Hail.—Level and rich loamy soil in the hills receiving drainage water from the surrounding hillocks.

Rakkar.—Clayey soil with a sub-soil of gravel or stone.

Gar.—Stiff poor soil full of stones hardly culturable with profits.

The various sub-divisions were observed only in the Khudri circle. *Barani* other than *Naledar* and *Hail*, in the remaining circles of Mianwali Tahsil, was recorded *barani* and this procedure would be followed in the Khudri also, in the crop inspection registers, *Janabandis* and revenue returns to be prepared after settlement.

Water-melons in the Thal part, if sown on other than cultivated lands, were not recorded as a crop in the last settlement and the land bearing such water-melons was shown as waste. Financial Commissioner has approved that in future water-melons will be returned as a crop if sown on lands that are regularly ploughed. Similarly "Khar" that in the last Settlement was not taken as a crop, has been sanctioned to be treated as a crop in future. The areas under such water-melons and "Khar" will in future be returned as cultivated.

17. All the field maps prepared in this settlement are on the scale 40 karams to an inch except in the case of a few large Government Rakhs in the Bhakkar Tahsil of which the maps were prepared on a scale 200 karams to an inch. The cultivated portions in these Rakhs also were separately shown on the 40 karams to an inch scale. Three copies of the map of each village have been prepared :—

Maps.

(a) Map prepared on the spot. This will remain in the District Record Room.

(b) A copy of (a) above, on Mussavis. This will remain in the Tahsil office.

(c) A copy of (a) above, on cloth. This will remain with the patwari for Girdawari work.

Regarding the riverain villages, one set of mussavis showing only the boundaries of villages has also been supplied by the Riverain party of the Survey Department. These mussavis have also been sent to the District Record Room.

Two copies of Index maps at the scale of 240 karams to an inch have also been prepared for all villages. One copy has been sent with the village maps to the District Record Room and the other to the Tahsil office.

A mujmali map for each of tahsils Bhakkar and Mianwali has been prepared on the scale 2 miles to an inch, and a copy has been sent to the Survey Department. Arrangement has been made for the printing of 150 copies each of the handkerchief maps and the maps on paper for—

(1) Tahsils Bhakkar, Mianwali and Isa Khel on one inch equal to two miles scale, and

(2) for the whole district on one inch equal to four miles scale, four miles scale have been placed with the abstract village note-books. Maps showing hill torrents by villages have also been prepared on mussavis on the 1 inch equal to 240 karams scale in connection with Riway-Abpashi

in Mianwali Tahsil and placed in the District Record Room, a copy being sent to the Tahsil Office and a copy being supplied to the Patwari.

18. A register of comparison of distances between trijunction pillars as ascertained by remeasurement has been prepared and sent to the District Record Room. The result of these comparisons is given below:—

Tahsil.	NUMBER OF TRIJUNCTIONS.									Total.	
	With no difference.	With difference less than						With difference more than 5 per cent.	For which distances could not be compared for want of previous entries		
		1 per cent.	1.5 per cent.	2 per cent.	3 per cent.	4 per cent.	5 per cent.				
Bhakkar	...	552	...	41	25	2	4	6	14	14	658
Mianwali	...	867	...	21	14	14	6	6	14	108	545
Isa Khel	...	114	...	14	7	8	6	...	10	10	168
Total	...	1,33	...	76	46	24	15	12	38	127	1,871

Differences are generally slight.

19. New Standing Record-of-Rights for each village contains the following documents:—

The Standing Record-of-Rights.

- (1) Preliminary Robkar (Proceedings), stating the authority under which the Record was prepared.
- (2) Geneological tree. It is prepared for superior and inferior proprietors generally for four generations.
- (3) Village field map with Index map.
- (4) Index to wells.
- (5) List showing *Khatauni* number of each field.
- (6) Index showing names of owners and occupancy tenants in alphabetical order.
- (7) Detailed *Jamabandi*. This is an exact copy of the *Khatauni* compiled during measurements.
- (8) *Jamabandi Tirni*. This has been prepared only for the villages of Thal circles of Bhakkar Tahsil, because in some villages of those circles, according to the conditions of the *Wajib-ul-Arz*, graziers are entitled to a share at a partition of the common waste. It is not necessary to prepare these *jama-bandis* in future as the cattle enumeration lists which are prepared from year to year contain the information and will, under instructions laid down in the *Dastur-ul-Amal*, be preserved till the partition of common lands.
- (9) *Jamabandi* for date trees. This has been prepared for only those estates which contained date trees.
- (10) List of assignments and pensions.
- (11) Statement of rights in wells.
- (12) Statement of rights in irrigation by sources other than wells.
- (13) Mutations containing orders incorporated in the *Jamabandi*.
- (14) *Fard Badar*.
- (15) Order of the Settlement Officer determining the assessment.
- (16) Orders of the Settlement Officer distributing the assessment.
- (17) Village administration paper.

20. New village note-books were brought into use with effect from *Kharif* 1926 in Bhakkar Tahsil and Sadat Miani villages of Mianwali Tahsil and contain provision for 30 years' entries. New bilingual village note-books have been received for the remaining portion of Mianwali Tahsil and will be opened from *Kharif* 1928. Arrangements have also been made to obtain village note-books for Patwaris in that portion and to open them from the same harvest. For villages remeasured in Isa Khel Tahsil also new village note-books will be opened from *Kharif* 1928 (See Director of Land Records letters Nos. 2313 and 2186, dated 30th August 1926 and 6th September 1928, respectively).

New abstract village Note-books for the Tahsils reassessed have been compiled containing for each village:—

- (i) a copy of the village inspection note by the Settlement Officer at last Settlement ;
- (ii) a small scale coloured map ;
- (iii) a copy of the statistical statements used during the village inspections ;
- (iv) my village Inspection Note ;
- (v) order of the Settlement Collector determining the new assessment.
- (vi) a revised blank form of the abstract village note-book approved by the Financial Commissioner with the relevant Settlement entries in red; and
- (vii) a sufficient number of blank pages for any subsequent entry.

Each volume contains from 12 to 20 villages and is provided with an index map showing the position and boundaries of these villages.

The Assessment statements actually used in the assessment work with maps used at inspections have been bound in circle volumes and have been sent for record in the District Record Room.

21. Discrepant boundary files numbering eleven had to be prepared for villages adjoining districts, Shahpur Jhang, Muzaffargarh and Dera Ismail Khan. Boundaries and tri-junction pillars. Ninety more files were also started on the discrepancies having been discovered in the boundaries of villages within the district. All the cases have been decided. Five hundred and twenty-six missing or damaged trijunction pillars have been replaced by stone pillars measuring 3' x 9" x 9". Four such stones put together were used for each trijunction pillar. The price of the stones and the cost of carriage was charged to the zamindars.

22. Number of mutations attested during the Settlement Operations up to the end of March 1928 was as below:—

Mutation and case work.

Bhakkar	...	...	...	...	21,784
Mianwali	...	...	...	...	25,706
Isa Khel	...	...	...	...	8,010
Total	...	...	...	...	55,450

The work of mutation in the Mianwali Tahsil is fairly heavy.

The following cases were disposed of during Settlement Operations:—

Partition	...	...	...	...	1,015
Lambardari	...	...	...	...	306
Patwaris and Kanungos	...	...	...	...	1,352
Boundaries	...	...	...	...	101
Muafi	...	...	...	...	162
Appeals	...	...	...	...	488
Other miscellaneous Revenue Officer's cases	...	...	...	...	5,006

Partition work especially in Mianwali Tahsil was heavy.

The objections relating to Paimana Kat are included in the other Miscellaneous Revenue Officers' cases. The number was by no means small and disposal difficult.

CHAPTER IV.—REVISION OF ASSESSMENT.

23. Government orders were for revision of assessment in Tahsils Bhakkar and Mianwali only. An enhance-

Forecast and orders for revision.

ment of 48 per cent. in Bhakkar and Sadat Miani circle of Mianwali Tahsil and 47 per cent. in the remaining part of the latter Tahsil was anticipated in forecast reports

24. The following table shows changes in cultivation in the tract under re-assessment since Settlement :—

Changes in cultivation.

Tahsil.	Particulars.	CULTIVATED AREA.								Total area.
		Irrigated.			Unirrigated.					
		Nahri.	Abi, Chahi and Chahi Sailab.	Total.	Sailab.	Naladar and Hail.	Barani.	Total.	Total cultivated.	
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Bhakkar	Settlement ...	..	30,979	30,979	1,29,566	...	25,053	154,624	1,85,603	2,005,886
	Now ...	...	37,497	37,497	120,231	...	225,330	345,561	383,058	2,009,608
	Increase or decrease per cent.	...	+ 21	+ 21	- 8	...	+ 799	+ 123	+ 103	...
Mianwali	Settlement ...	...	3,919	3,919	78,772	45,167	127,946	251,885	255,804	981,303
	Now ...	10,826	1,780	12,606	49,190	43,665	292,216	384,471	397,777	971,722
	Increase or decrease per cent.	..	- 55	+ 222	- 38	- 5	+ 128	+ 53	+ 55	...

The entries for cultivated area in this table do not include Government Rakhs and Civil Station Mianwali which have been included in the figures for total area. Cultivation is mostly unirrigated. Decrease in *abi* and coming into existence of *nahri* cultivation are entirely due to the construction of Nammal canal. River action is responsible for decrease in *sailab* in all the circles excepting Pakka circle of Bhakkar Tahsil and in *chahi-sailab* in Sadat Miani and Kacha circles of Mianwali Tahsil. *Chahi* area has increased in both the Thal circles of Bhakkar Tahsil but has decreased in all the circles of Mianwali. Enormous increase however is in *Barani* cultivation everywhere. This increase is most marked in the northern portion of Bhakkar Thal and the southern portion of Mianwali Thal in which *maira* lands are well suited to successful *barani* cultivation at a very small cost.

25. The changes in cropping since Settlement in the tract under reassessment are exhibited in the table below :—

Changes in cropping.

Harvest.	Crop.	BHAKKAR INCLUDING SADAT MIANI VILLAGES OF MIANWALI TAHSIL.		MIANWALI EXCLUDING SADAT MIANI VILLAGES.	
		Settlement.	Average selected years.	Settlement.	Average selected years.
Kharif	Bajra ...	7.1	2.5	28.5	13.4
	Jowar ...	5.0	1.8	5.5	4.2
	Moth ...	10.0	4.0	4.7	1.0
	Other ...	9.8	10.2	5.8	2.0
	Total ...	31.9	18.5	44.0	20.6
Rabi	Wheat ...	36.6	33.4	31.2	39.5
	Barley ...	4.2	2.4	3.8	1.6
	Gram ...	13.0	31.1	11.5	32.7
	Taramira ...	2.3	4.0	3.5	2.1
	Other ...	12.0	10.6	6.0	3.5
	Total ...	68.1	81.5	56.0	79.4

The very important change in each Tahsil is the decline of *kharif* in favour of *rabi*. Each of the *kharif* crops has come down excepting *til* in Mianwali Tahsil and *chari* and other *kharif* fodder in both the Tahsils. In the riverain, areas are generally under flood waters during autumn and hence incapable of producing *kharif* crops to a large extent. The great heat and the prevalence of hot winds render autumn cultivation difficult in the Thal. Moreover the *rabi* which is shown after the summer rains, reaches to maturity even with a little rainfall if it is timely, because of the far less evaporation in the winter. Wheat is the main crop which has contributed most to the increase in the *rabi*, but the crop that has become most popular since Settlement is gram, to the cultivation of which lands in the Thal are well adapted.

26. The following table shows changes in population :—

Population.						
Tahsil.	1901.	1911.	Change per cent.	1921.	Change per cent in 10 years.	Change per cent. in 20 years.
Bhakkar ...	125,803	135,127	+ 7	147,121	+ 9	+ 17
Mianwali ...	1 9,074	138,805	+ 17	141,690	+ 4	+ 22

The increase in population has not kept pace with the increase of cultivation in both the Tahsils. Decrease in Sadat Miani and Kacha circles in the latest census is entirely due to the people emigrating to more secure parts of the tract on their lands having been washed away by the river. The density of population per square mile of cultivation is 247 and 246 in Tahsils Mianwali and Bhakkar, respectively. The pressure on cultivation cannot be called excessive.

27 The following table gives a comparison of the live stock at Settlement and now :—

Live stock.							
Tahsil.	Petail.	Bullocks, oxen and buffaloes.	Cows, cow-buffaloes and young stock.	Sheep and goats.	Horses and ponies.	Mules and donkeys.	Camels.
Bhakkar ...	Settlement ...	38,650	58,726	337,846	1,984	7,419	20,487
	1928 ...	48,143	76 101	357,287	2,710	9,952	12,538
	Per cent. difference.	+ 25	+ 30	-8	+ 37	+ 34	-39
Mianwali ...	Settlement ...	36,601	53,847	149,743	2,120	5,434	2,543
	1928 ...	41,958	76,665	96,990	3,235	6,345	2,537
	Per cent difference.	+ 15	+ 42	-35	+ 55	+ 17	...

The Settlement figures refer to the cattle census of 1904 and those of "now" to cattle census of 1928.

The prices of agricultural stock have considerably increased, and so also profits from them. According to calculations in the Assessment Reports, income to the owners of land from the live stock is something like Rs. 5,74,690. This income exceeds the new assessments. The local supply of bullocks is enough and especially the Dhani Breed is exported.

28. The extent to which land has been alienated since last settlement is shown in the following table:—

Tahsil.	SALES SINCE SETTLEMENT IN PERCENTAGES.				EXISTING MORTGAGES IN PERCENTAGES.			
	To agriculturists.	To others.	Total.		To agriculturists.	To others.	Total.	
			Total area.	Cultivated area.			Total area.	Cultivated area.
Bhakkar ...	13.9	3.0	16.9	13.2	2.7	4.9	7.6	7.9
Mianwali ...	6.6	1.2	7.8	9.1	8.6	3.7	12.3	15

Figures for Bhakkar Tahsil and Sadat Miani circle of Mianwali Tahsil in the above table do not include *shamilat* and *abadi* lands. Nowhere the figures of transfer are large. Most of the area sold in both the tahsils and mortgaged in Mianwali Tahsil has gone to agriculturists. The area under mortgage with non-agriculturists includes mortgages for limited periods also.

29. Figures regarding present value of land are given below:—

Value of land.

Tahsil.				Sale price per acre.	Mortgage value per acre.
				Rs.	Rs.
Bhakkar	...	...	...	63	56
Mianwali	...	...	...	91	74

Transfers to non-agriculturists have been excluded in obtaining average prices. Since settlement sale prices have trebled and mortgage values have doubled in both the Tahsils.

30. The selected years approved by Financial Commissioner for Mianwali Tahsil excluding the Sadat Miani villages were 10 ending 1925-26.

For the remaining tract also I recommended for adoption of 10 years ending 1923-24. Financial Commissioner, however, sanctioned adoption of the 2nd half of this cycle noting that "this decision is in a sense provisional in that the matter can be examined with more minuteness when the Assessment Report is submitted for orders." Eventually in the orders on the Assessment Report, he did not accept the proposal made in paragraph 40 of the Report for assuming higher rates of *kharaba* and consequently lowering the average matured area in the Thal part, and sanctioned new *jamias* on the basis of years:—

Five years ending 1923-24	... for Pakka and Kacha circles and the riverain portion of Sadat Miani circle and the chahi cultivation in the whole of the tract, and
Ten years ending 1923-24	... for Barani cultivation.

To the assesses the cycle adopted in every case was more favourable than the other.

31. As at the previous Settlement, it was found necessary to adopt separate scales of commutation prices for the two tahsils under re-assessment, Sadat Miani circle going with Bhakkar Tahsil. The rates proposed by me were very low as compared with those prevailing then, and the same were sanctioned. For principal crops in annas per maund or rupees per acre they are :—

	TAHSIL BHAKKAR AND SADAT MIANI VILLAGES.		TAHSIL MIANWALI EXCLUDING SADAT MIANI VILLAGES.	
	Sanctioned now.	General rise per cent. over previous settlement.	Sanctioned now.	General rise per cent. over previous settlement.
	Annas.		Annas.	
Wheat	40	48	42	40
Gram	32	52	32	45
Barley	26	44	27	42
Taramira	50	56	50	61
Sarshaf, linseed and other oil-seeds.	55	12	60	50
Massar and other rabi pulses ..	30	87	32	39
	Rs.		Rs.	
Tobacco	35	40	35	75
	Annas.		Annas.	
Bajra	30	15	32	33
Jowar	28	27	28	40
Cotton	80	38	90	41
Moth	40	54	40	54
Mung	14	10	44	29
Mush and other kharif pulses	44	37	44	29
Til	80	51	80	33
	Rs.		Rs.	
Vegetables and spices ...	25	67	30	500

In spite of this general rise as noted in the above statement, the effective rise was put at 40 per cent. in both the tahsils. As a result of enquiries made under Financial Commissioner's instructions the effective rise in prices of flocks, camels and cattle and their produce was also taken at 40 per cent.

For straw the following values in annas per maund were assumed :—

Wheat & Barley 3, Gram 2 & Moth 4.

32. Outturns assumed by me were lowered by higher authorities :—

Outturns.

(1) for *chahi* wheat and *barani* gram in Thal Kalan and Daggar circles of Bhakkar Tahsil and Sadat Miani circle of Mianwali Tahsil, and

(ii) for *sailab* wheat and *barani* gram in Mianwali Tahsil excluding Sadat Miani circle.

These alterations have been incorporated in Appendix III which shows the yields eventually assumed.

33. The following statement gives details of the area cultivated by owners and tenants of various classes:—
Cultivating Occupancy.

Percentages of cultivated area tilled by		TENANTS AT WILL.															
Tract.	Assessment Circle.	OWNERS.		OCCUPANCY TENANTS.		FREE OF RENT OR AT NOMINAL RENT.		AT REVENUE RATES WITH OR WITHOUT MADIRANA.		ON OTHER CASH RENT.		AT RENTS IN KIND.				TOTAL.	
		Last Settlement.	Now.	Last Settlement.	Now.	Last Settlement.	Now.	Last Settlement.	Now.	By fixed amount of produce.		By Batai.					
										Last Settlement.	Now.	Last Settlement.	Now.	Last Settlement.	Now.		
Mianwali Tahsil including Sadat Miani circle.	...	42.2	33.9	5.6	7.0	...	0.8	...	...	...	...	...	...	...	...	...
	...	69.2	54.5	1.3	1.1	4.0	...	...	...	...	...	...	...	...	...	...
	...	49.3	49.2	3.6	1.5	...	...	...	...	...	...	...	...	...	...	...
	Total	55.5	50.6	2.8	2.0	2.2	...	2.0	2.5	...	...	...	...	...	...	...	...
Bhakkar Tahsil including Sadat Miani circle of Mianwali Tahsil.	Kacha	31	35.9	35	28.9	1	...	5	2.5	...	...	...	...	...	...	...	...
	Pakka	46	44.9	15	7.6	...	...	5	3.3	...	...	...	...	...	...	...	...
	Daggan	74	64.6	24	1.8	...	...	17.2	5.0	...	...	...	...	...	...	...	...
	Thal Kaian	84.3	94.2	...	...	...	...	12.3	...	...	...	...	...	...	...	...	...
	Sadat Miani	...	73.7	...	11.0	...	...	...	2.0	...	...	...	...	...	...	...	...
	Total	51.9	50.4	16.3	6.3	6.7	2.0

NOTE.—Separate figures for last Settlement are not available for Sadat Miani Circle.

Reasons for changes in cultivating occupancy have been given, at some length, in the Assessment Reports. The percentage of the area cultivated by occupancy tenants has, with only one exception of the Khudri circle, decreased everywhere. Barring Kacha circles percentage of self-cultivation has really decreased, because due to spread of cultivation owners

have had spare lands to lease. All these causes have resulted in increase of the percentage of the area under tenants-at-will. It is mainly *shamilat* lands in which cultivation has expanded in Daggar and Thal Kalan circles and the upland portion of Sadat Miani. It is regarding such *shamilat* lands that in consequence of the Sind Sagar Colonization Act, there exists certain restrictions on partition and acquisition of any rights. The result is that all cultivators in such lands are being entered in the revenue records, as tenants-at-will, most of whom pay no rent to anybody. All such lands under tenants-at-will at revenue rates have been included in the above statement in the area cultivated by owners. It is for this reason that there is an apparent decrease in the Thal Kalan circle and only a limited increase in the Daggar, in the area cultivated by tenants-at-will.

34. The areas under cash rents and the rents in kind by fixed assessment of produce are non-existent or only nominal.

The following table shows, on the average, the percentages of the total produce taken by the landlord in *batai* :—

Tahsil.	Assessment Circle.	CHAHU		CHAHU NAILAB.		NAHRI.		ABI.		NAILAB.		NALE DAR.		HAIL.		BARANI.	
		Settlement.	Now.	Settlement.	Now.	Settlement.	Now.	Settlement.	Now.	Settlement.	Now.	Settlement.	Now.	Settlement.	Now.	Settlement.	Now.
Bhakkar.	Kacha	...	...	31	32	...	...	...	...	39	39	...	...	...	...	...	...
	Pakka	...	...	30	30	...	...	...	...	35	35	...	...	...	...	...	...
	Daggar	28	22	...	...	...	...	...	...	...	...	...	...	...	...	33	36
	Thal Kalan	23	26	...	...	...	...	...	...	...	...	...	...	...	...	28.5	45
Mianwali.	Khudri	36.7	38	...	...	...	...	31.4	49	...	50	...	...	34	...	33.5	34
	Pakka	40.2	45	...	...	...	50	42.9	...	...	50	...	46	...	40	47	50
	Kacha	41.9	44	43	47	...	...	...	...	49.5	49	Included in Barani.	50	Included in Barani.	...	49.7	49
	Sadat Miani	25	50	31	33	...	...	...	...	39	39	...	...	...	...	33	38

There has been a general tendency for rents to rise. Marked improvement has been in the case of *chahi* and *barani* rents in the Sadat Miani and Thal Kalan circles, respectively.

35. (a) *Menials' dues*.—The details of payments made to menials out of the common heap are given in the Assessment Reports. Elaborate calculations were made in each circle and liberal deductions allowed everywhere. The following table shows the percentage of the total produce allowed :—

Tahsil Bhakkar including the Sadat Miani villages of Mianwali Tahsil ... 9 per cent.
The remaining part of Mianwali Tahsil ... 11 per cent.

(b) *Fodder*.—The landlord always receives his usual share of the straw, bajra and jowar stalks and green fodder. For reasons given in the Assessment Reports, however, the following deductions were allowed.—

- (1) Stalks of every kind were left out of account everywhere, and
- (2) In Bhakkar and Sadat Mian villages alone—

- (a) Landlord's share was lowered 10 per cent. for straw everywhere, and for fodder crops in the riverain and barani cultivation of the Thal, and
- (b) for well cultivation in Thal Kalan and Daggar circles and Upland portion of the Sadat Miani, there were left out of calculation the whole areas under certain fodder crops, $\frac{1}{8}$ th of wheat and $\frac{1}{4}$ th of barley.

(c) *Other expenses*.—For arriving at net assets, deductions were made for the following expenses borne by the landlord :—

- (i) Supply of well gear per well—

In the riverain ... Rs. 5.
In the part above the high bank ... Rs. 8 in Mianwali Tahsil excluding Sadat Miani circle.
Rs. 7 in the remaining portion.

37. The systems of assessment sanctioned at last Settlement have been described in paragraph 10 *ante*. I proposed in the old systems the following changes :—

Systems of Assessment.

- (i) The assessment of both *chahi* and *barani* cultivation in Thal Kalan and Daggar circles of Bhakkar Tahsil and the Upland portion of Sadat Miani Circle of Mianwali Tahsil, should be changed to entirely fluctuating one.
- (ii) For the riverain portions of Sadat Miani circle and of the Kacha circles there should be a flat rate in a circle for each of the three classes of crops.
- (iii) There should not be any additional rate for *chahi-sailab* crops in Kacha circle of Bhakkar Tahsil and Sadat Miani circle of Mianwali Tahsil.
- (iv) In the riverain portion of Kacha circle of Mianwali Tahsil :—
 - (a) Water melons should be included in the II Class crops instead of III Class crops, and
 - (b) The fluctuating assessment on grazing lands (1) should have an uniform rate, and (2) should also be freed from complications of modifications.

These proposals were supported in their entirety by Commissioner. Financial Commissioner, however, sanctioned only changes Nos. (ii), (iii), (iv) (a) and (iv) (b) (1) and also ordered that there should be no additional *chahi-sailab* rate in the Mianwali Tahsil. Thus in future systems of assessment would be as follows :—

Systems of Assessment.	Name of Tahsil.	Assessment circles and other particulars for which imposed.
Fixed	(i) On cultivation. { Bhakkar ...	Powah of Bhakkar town in Pakka circle
	{ Mianwali ...	Barani jama in Thal Kalan and Daggar circles.
		Khudri circle.
		Barani jama in the Upland portion of Sadat Miani circle.
Fluctuating	(ii) Grazing Jama. { Bhakkar ...	(i) On waste in Thal Kalan and Daggar circles.
	{ Mianwali ...	(ii) Tax on camels in Thal Kalan and Daggar circles.
		(i) On waste in the Upland portion of Sadat Miani circle.
		(ii) On hill area in Khudri circle.
	(iii) On date trees Bhakkar ...	Pakka and Kacha circles.
	(i) By crop rates on cultivation. { Bhakkar ...	Pakka and Kacha circles.
	{ Mianwali ...	Riverain portion of Sadat Miani and Kacha circles.
	(ii) By acreage rate on grazing lands. { Mianwali ...	Pakka Circle and Upland portion of Kacha circle.
	(iii) By all round rates on cultivation. { Mianwali ...	
	(iv) By system of Assessment. Thal Bhakkar ...	Chahi lands in Thal Kalan and Daggar Circles.
	Mianwali ...	Chahi lands in the Upland portion of Sadat Miani circle.
	(v) On water mills. Mianwali ...	Every working mill in a year in which it is at work.

In the case of fluctuating assessment by all-round rates, there have been fixed for every village :—

- (i) An all round rate per acre of matured crops of whatever kind or class, and
- (ii) additional rate for *chahi*, *nahri*, *chahi-nahri*, *naledar* and *hail* lands.

These rates will be applied each harvest.

For purposes of assessments by crop rates, crops have been divided into three classes :—

Class I.—Sugarcane, chillies, fruits, vegetables including spices, tobacco and wheat.

Class II.—All crops not included in classes I and III.

Class III.—Jowar, massar, peas and fodder including turnips, china, samukha, etc.

In the case of crop rates varying from village to village, Deputy Commissioner has the power, with Commissioner's sanction, to reduce not lower than the minimum rate, the rate for the village, of which the productiveness is materially affected by action of the river.

Quite a similar power has been provided for lowering the additional *chahi-sailab* rate on a well which is proved to have permanently deteriorated since Settlement.

In Thal Kalan and Daggar circles and the Upland portion of the Sadat Miani, as at last Settlement, the Collector can, subject to the control of the Commissioner, remit in a year of drought or *murrain*, such portion of *barani* and grazing assessment in a village as he thinks necessary.

Exactly similar power has been provided for remission of the fixed tax on camels.

As regards the fixed assessment on date trees also the last Settlement rule will continue according to which remission can only be granted if any tree assessed to revenue is carried away or brought down, by river, or one of its creeks.

Detailed rules for working the Thal system of assessment are given in appendix IV.

38. The following table gives the rates sanctioned for various classes of cultivation :—

Assessment Circle.	RATES SANCTIONED PER ACRE MATURED OF																
	Chahi-Sailab and Sailab.						Additional rate for I Class Chahi-Sailab on certain riv. wells.	Chahi.	Barani.	Chahi Powab.							
	Class I.	Class II.	Class III.														
				Rs.	A.	P.											
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.					
Kachi	1	12	0	1	3	0	0	■	0	...	...	...	...
Pakka	1	14	0	1	3	0	0	8	0	0	2	0	...	...	6	0	0
Daggar	...	...	...	...	...	...	...	...	...	0	12	0	0	■	6	...	...
Thal Kalan	...	...	...	...	...	...	...	...	...	0	13	0	0	6	0	...	...

The results of re-assessments on cultivation of the tahsil would appear from the following table:—

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Assessment Circle.	DEMAND OF SELECTED YEARS.			One-third net assets.	SANCTIONED DEMAND.			ASSESSMENT ACTUALLY IMPOSED.			Amount deferred.	Percentage of one-third net assets absorbed.	Increase or decrease per cent of assessments imposed on that of selected years.
	Fixed.	Fluctuating.	Total.		Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.			
Kacha	...	42,777	42,777	65,264	...	56,398	56,398	...	56,398	56,398	...	86	+32
Pakka	544	50,309	50,853	112,233	768	105,590	106,358	768	106,609	107,377	...	96	+33
Daggar	554	5,610	6,214	26,248	7,175	7,088	14,263	7,414	7,200	14,614	3,707	56	+136
Thal Kalan	2,618	4,153	6,771	38,873	28,015	5,051	33,066	28,808	5,658	33,900	14,401	38	+401
Total	3,716	132,869	136,615	292,621	35,188	174,157	210,115	36,985	176,305	212,000	18,108	73	+55

This shows that the pressure of the new assessments on resources is very light in Thal Kalan and Daggar circles. The demand shown in the table above under 'fluctuating' for these circles is the *chahi-jama* estimated as recoverable, and due to the peculiar nature of the Thal system of assessment is less than the maximum demand fixed for well cultivation.

The rates and estimated demands which I proposed for fluctuating assessments in the Thal circles are given in the table below:—

Circle.	RATES PROPOSED						RESULTING REVENUE.	
	Chahi			Barani			Chahi	Barani
	Rs.	A.	P.	Rs.	A.	P.	Rs.	Rs.
Thal Kalan	1	0	0	0	12	0	6,650	39,905
Daggur	1	0	0	0	10	0	9,272	9,788

There being large areas available for future expansion of cultivation and *barani* cultivation having become popular, it is to a great advantage of the rate-payers that these proposals were not sanctioned.

Grazing Jama.—For grazing *jama*, rates and demand sanctioned and actually imposed are given below:—

Assessment Circle.	DEMAND OF SELECTED YEARS.			SANCTIONED RATES AND DEMAND.				DEMAND ACTUALLY IMPOSED.		
	Fixed.	Fluctuating.	Tot l.	Demand.						
				Rates per 100 acres.	Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.
Thal Kulan	8,860	..	8,860	R. A. P.	R.	R.	Rs.	Rs.	Rs.	Rs.
Daggar	2,419	...	2,019	1 2 0	8,415	...	8,415	8,415	...	8,415
Pakka	...	622	622	0 13 0	1,979	...	1,979	1,979	...	1,979
Kacha	...	1,183	1,183	3 8 0	...	604	604	...	604	604
				3 8 0	...	1,047	1,047	...	1,047	1,047
Total	10,870	1,805	12,684	...	10,394	1,651	12,045	10,394	1,651	12,045

Tax on camels and assessment on date palms.—In addition an assessment of Rs. 7,688 has been sanctioned for tax on camels in Thal Kalan and Daggar circles, and of Rs. 1,290 for date trees in the riverain, against the previous demands of Rs. 6,150 and Rs. 969, respectively.

The following table gives the total assessment of all kinds in the Tahsil :--

DEMAND OF SELECTED YEARS.			DEMAND IMPOSED.			Increase or decrease per cent.
Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.	
21,714	134,704	156,418	53,357	176,956	233,813	+49

39. The following table gives the rates sanctioned for various classes of cultivation:—

Assessment Circle.	CHAHJ-SAILAB AND SAILAB.			RATES SANCTIONED (PER ACRE OF CULTIVATION FOR KHUDEBI CIRCLE AND PER ACRE MATURED FOR THE REST.)					
	Class I.	Class II.	Class III.	Chahi.	Nahri.	Chahi-Nahri.	Abi.	Naledar and Hail.	Other Barani.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Khudbi ...	...	...	...	0 10 0	...	...	0 14 0	0 14 0	0 10 0
Pakka...	1 8 0	1 0 0	0 8 0	1 4 0	1 4 0	1 4 0	...	1 4 0	0 15 0
Kacha...	1 8 0	1 0 0	0 8 0	1 4 0	...	...	...	1 4 0	0 15 0
Sadast Miani.	1 10 0	1 8 0	0 5 0	1 0 0	...	...	...	...	0 7 0

The results of re-assessments on cultivation of the Tahsil would appear from the following table:—

Circle.	DEMAND OF SELECTED YEARS.			One-third net assets.	SAVED DEMAND.			ASSESSMENT ACTUALLY IMPOSED.			Percentage of one-third net assets.	Increase or decrease per cent. of assessment imposed on that of selected years.	AMOUNT DEFERRED.		
	Fixed.	Fluctuating.	Total.		Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.			Fixed.	Fluctuating.	Total.
Khudhri	29,688	...	29,688	51,776	33,128	...	33,128	33,493	...	33,493	65	+13	...	...	...
Pakka	...	109,471	109,471	26,336	140,745	140,745	140,745	144,389	...	144,389	54	+32	...	8,137	8,137
Kacha	...	45,597	45,597	85,644	48,957	48,957	48,957	...	50,214	50,214	58	+9	...	2,923	2,923
Sadat Mandi	50	4,551	4,601	10,454	1,050	5,941	6,991	1,050	5,939	6,989	67	+52	525	...	525
Total	29,738	159,919	189,657	415,210	34,178	195,643	229,821	34,543	200,542	235,085	57	+24	525	11,060	11,585

This shows that the pressure of the new assessment on resources in Pakka and Kacha circles is light. Light soil of the southern portion of the Thal part is well adapted for *barani* cultivation of gram and wheat and could bear a heavier burden.

As at last Settlement no grazing *jama* has been imposed in Pakka circle and the Upland portion of Kacha circle. The old fixed demand of Rs. 600 on the hill area of Khudri circle has been retained.

The rates sanctioned and demand imposed on the waste in the remaining portion are shown below :—

					Demand of selected years.	Sanctioned rates per 100 acres.	Demand imposed.
					Rs.	Rs. A. P.	Rs.
Sadat Miani	{	Upland portion (fixed)	...	...	48	0 14 0	6
		Riverain portion (fluctuating)	...	...	223	3 8 0	481
Riverain portion of Kacha Circle		...	...	...	1,619	3 8 0	2,485

The assessment on the waste in the riverain portion of the Kacha circle is subject to restrictions given in Appendix V.

Fluctuating assessment has been imposed on water-mills at the rate of Rs. 6 per mill in a year when it is at work. There is only one such mill working now in the Tahsil.

The following table gives the total assessment of all kinds in the Tahsil :—

DEMAND OF SELECTED YEARS.			DEMAND IMPOSED.			Increase or decrease per cent.
Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
80,386	1,61,766	1,92,152	85,154	2,03,464	2,38,618	+24

40. The incidence of the assessment imposed on cultivation is compared in the table below, with that of the old assessment at the time of Settlement. The incidence estimated in the Forecast Reports is also entered :—

Tahsil.	INCIDENCE PER ACRE.				INCREASE OR DECREASE PER CENT.		INCIDENCE ESTIMATED IN THE FORECAST REPORTS.	
	Matured.		Cultivated.		Matured.	Cultivated.	Matured.	Cultivated.
	Settlement.	Now.	Settlement.	Now.				
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.			Rs. A. P.	Rs. A. P.
Bhakkar	0 15 0	0 14 7	0 11 1	0 8 10	-7	-20	0 13 11	0 11 0
Mianwali	0 1 9	1 0 4	0 0 7	0 9 6	+4	-10	1 5 9	0 11 9

Incidence per acre of cultivation has decreased in both the tahsils and incidence per acre matured has diminished in Bhakkar Tahsil, but has slightly increased in Mianwali Tahsil.

41. The result of the re-assessments are given below. Figures for Isa Khel Tahsil of which the assessment has not been revised have also been shown :—

1	2	3	4	5	6	7	8	9	10	11	12
Tahsil.	LAST SETTLEMENT DEMAND.			AVERAGE DEMAND OF SELECTED YEARS.			DEMAND IMPOSED.			INCREASE OF COLUMN 10 OR 7.	
	Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.	Total.	Per cent.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bhakkar	21,714	1,14,853	1,56,567	21,714	1,24,794	1,56,508	50,357	1,76,956	2,33,313	70,895	44
Mianwali	50,701	1,31,116	1,73,907	30,386	1,61,766	1,92,152	35,154	2,03,484	2,38,638	46,486	24
Total Tahsils re-assessed	52,507	2,77,009	3,30,476	52,100	2,96,560	3,48,660	85,511	3,80,440	4,71,951	1,23,291	35
Isa Khel	8,080	67,006	75,086	4,501	66,733	71,234	8,501	66,233	74,734	...	...
Total of the district	60,587	3,44,015	4,04,602	56,601	3,63,293	4,23,894	94,012	4,46,673	5,46,685	1,23,301	29

For Isa Khel Tahsil for the sake of comparison the same figures have been shown under "Demand imposed" as under "Average demand of selected years". Decrease of demand in this tahsil is due mainly to the river action.

42. (A) *Cultivation*.—Flat rates for various classes of crops for all the estates or portions of estates in a circle have been sanctioned regarding the whole of the riverain in both the tahsils excepting—

Distribution of rates of revenue over estates.

(i) I Class crops

(ii) Additional rate for I Class Chahi-Sailab crops.

In the Pakka circle of Bhakkar Tahsil.

Additional rates for I Class *Chahi-Sailab* crops are fixed on only rich wells so as to bring out the *jama* sanctioned. My village inspection notes fully dealt with such wells. At the time of announcing the *jama* I again discussed the matter with the zamindars and after full consideration of the merits of each well, I fixed the additional rates varying between annas 4 and 8 with a difference of annas 2 between two consecutive variations.

In the villages of the Pakka circle of Bhakkar Tahsil, rates for the first class crops, and in the whole of the uplands of both the tahsils, regardless of the fixed or fluctuating assessments, rates for various classes of cultivation, were fixed by me according to the resources of each village and with reference to the sanctioned circle rates. In village Dullewala in Thal Kalan and Pir Pihai in Khudri, rates had to be differentiated even within a village. The rates thus fixed were carefully compared with those of neighbouring villages or villages of the similar type. In this way a net work of carefully adjusted rates by villages was spread from one end of the circle to the other before I began to announce the *jamats*. These rates were soil rates in the case of Khudri circle, and per acre matured for the rest of the tract. In the case of the fixed *jama*, the rates thus determined for a village applied to (1) the cultivated area by soils obtained on measurements in the case of the Khudri circle, and (2) the average matured area of the selected years regarding the rest of the tract, gave the *jama* of the village. There are only two villages in Khudri circle in which, due to decrease in cultivation, the assessment of the Last Settlement had to be lowered.

The last Settlement circle rates of the riverain portion of the Kacha circle of Mianwali Tahsil have been left unaltered with a direction that there will be no differentiation of rates between villages. This has resulted in lowering the *jama* of such of the villages in the Kacha as previously had the rates of the first Grade.

Appendix VI shows the maximum and minimum rates announced.

(B) *Waste*.—Rates sanctioned for the waste in the riverain part are uniform throughout. No differentiation from village to village is considered necessary anywhere in the Thal part. Distribution of fixed grazing *jama* in Khudri circle was left unaltered. The fixed amount of camel *tirni* has been distributed over the 12 “Dags” (groups of villages) formed at last Settlement, and at the sum thus apportioned, each “Dag” has been leased out to contractors for collection of *tirni* for the camels whose owners reside in the “Dag” at the yearly rates of—

Re. 1-4-0 per she-camel.

Re. 1 per he-camel.

(C) *Date trees*.—Female date trees have been assessed at 1 anna a tree (against 9 pies in the last Settlement) in all the estates having trees enough to give a revenue of Rs. 10. Fifteen such estates were found in the Pakka circle and one in the Kacha of Bhakkar Tahsil.

43. In the table below are given the number of objections lodged against the new demand, which in fact was everywhere received as moderate or light:—

Tract.	Number of estates.	NUMBER OF OBJECTIONS.	
		Total.	Accepted.
Bhakkar including Sadat Miani ...	257	16	9
Mianwali excluding Sadat Miani ...	118	17	1
Total	375	33	10

There was no appeal for Bhakkar Tahsil and Sadat Miani circle, while those for the rest of Mianwali Tahsil are not yet known.

44. The internal distribution was not confined only to the purely fixed assessments and had to be considered regarding the following:—

Distribution over holdings and wells.

- (i) fluctuating grazing assessment in the riverain;
- (ii) fixed assessment in Khudri;
- (iii) fixed assessment in Powah of Bhakkar town in Pakka circle of Bhakkar tahsil;
- (iv) fixed *barani* and grazing *jama* in Thal Kalan and Daggar circles and upland portion of Sadat Miani circle, and
- (v) assessment on wells in the tract mentioned in (iv) above which, as the nature of its peculiar fluctuating character requires, had to be fixed for each well or share of a well as far as maximum limit is concerned.

As regards (i) there was no reason to change the last Settlement method according to which the grazing *jama* is made up by charging the cattle at rates put down in the Wajib-ul-Arz of each village.

As regards (iv) also, there was no reason for any alteration in the previous method of distribution according to which the fixed *barani* and grazing *jamas* are lumped together. This aggregate *jama* will be recovered by both or any of the following methods:—

- (a) Applying each harvest to the sown area of *barani* cultivation (excluding the area sown with seed which has failed to germinate), the same rate as has been fixed for each village in determining its fixed *barani jama*, and
- (b) Charging the balance to the cattle at a tax per head given in Wajib-ul-Arz of each village, the profit and loss being, with a few exceptions, shared with reference to the number of cattle.

For the remaining kinds of distribution, enquiries into the proposed methods of distribution were instituted, in each village, by Naib-Tahsildars and Tahsildars at their final attestations. The previous method was explained to the people, their statements were recorded and proposals were made for new *bachh*. The files were then held over till the new demand was announced. As new *jama* was announced to each village, its *bachh* file was produced. The statements of the rate-payers were again recorded and the method of distribution was sanctioned.

As regards (ii) some of the villages have adhered to the same rates for distribution over holdings as have been fixed for various classes of soils in determining their fixed *jama*, while others have agreed to fix different rates of the demand on the various classes of cultivation. With respect to the grazing *jama* in the hill area, the owners have agreed to maintain the last Settlement method of its distribution on all land-owners rateably to the land revenue payable by them.

There was much disagreement among the owners regarding distribution of the *jama* for wells in the Powah mentioned in (iii) above. After full consideration of the factors: previous demand, crops, quality of soil, facility of manure and market, and existence of garden, I fixed the amount for each well.

More tedious and voluminous task thrown upon me was, however, the distribution of the assessment on Thal wells mentioned in (v) above. Not only the *jama* announced as estimated recoverable had to be distributed on wells and shares at work, but the amount had also to be fixed for each of the existing wells that was not in use during the selected years. In fixing *jamas* for all such wells, capacity of a well, culturable land that could be irrigated from it and every other relevant point were carefully considered by me in presence of the persons interested. The fact that the owners of only four out of more than 1,200 wells objected, shows the advantage of the method employed in the distribution. To land-owners the distribution over holdings in the Khudri circle and Powah of Bhakkar town was announced by the Tahsildar or the Naib-Tahsildar, and in the rest of the tract by myself.

Altogether there were only 7 objections against *bachh* in the whole tract.

45. In paragraph 4 of Government Orders on the Assessment Report of the Thal tract of the Dera Ismail Khan District, sanction was given at last Settlement for a well in the Thal that if no assessment was imposed on it at Settlement, the assessment should be calculated at the rate of Rs. 9 in Thal Kalan and Rs. 10 in the Daggar when fully at work. The upland portion of the present Sadat Miani circle was included in Daggar circle then. No such provision has been made in this Settlement and Financial Commissioner's directions are that decision regarding this matter can be made when passing orders on the Final Settlement Report.

Assessment of wells under Thal system of assessment not assessed at Settlement.

The last Settlement circle rates of Re. 0-9-0 and Re. 0-9-6 per acre matured for Thal Kalan and Daggar circles, respectively, have been raised to Re. 0-12-0 giving enhancement of 33 per cent. in each case. The last Settlement rate of Rs. 9 and Rs. 10 if raised 33 per cent. give Rs. 12 and Rs. 13 as the rates per well in Thal Kalan and Daggar circles respectively. In fact these are the figures which, in paragraphs 11 and 12 of the orders on my Assessment Report of Bhakkar Tahsil and the Sadat Miani villages, have been mentioned to be taken as guiding rates. Sanction may be given that in cases of wells on which, for some reason or another, no assessment has been imposed at Settlement, the assessment shall be calculated at the rate of Rs. 12 in Thal Kalan and of Rs. 13 in Daggar and the upland portion of Sadat Miani, for a well fully at work.

46 The new assessment was brought into force from *Kharif* 1926 in Bhakkar Tahsil and Sadat Miani circle of Mianwali Tahsil, and will take effect from *Kharif* 1928 in the rest of Mianwali Tahsil. The existing assessment of Isa Khel Tahsil which has been excluded from re-assessment, was introduced from *Kharif* 1907 for a period of 20 years.

The assessment is light everywhere excepting the riverain portion of Bhakkar Tahsil and of the Sadat Miani circle.

Fluctuating assessments under which most of the district is, will take into account the greater part of the new resources as they come into existence. The case is, however, different with Thal Kalan and Daggar circles and the upland portion of the Sadat Miani, not only because *barani* cultivation which predominates has been placed under the fixed assessment, but also because there are great possibilities of future developments. Shorter term for these portions would be advisable if the pressure of the demand on resources and the material condition of the tracts were the only consideration. It will, however, be unusual to have a separate term for only a portion of each tahsil. There is no prospect of speedy improvements of conditions in Isa Khel Tahsil so as to justify revision of its assessment earlier than the rest of the district.

Taking out of account the small area irrigated from Nammal Canal that was constructed after last Settlement, draft revenue bill (No. 2 of 1927) provides for a period of 40 years for districts like the one under report, but it is not certain whether the bill is passed into law before orders are passed on this Report.

Records of most part of the district have been revised, and a special *tarmim* is being done under Deputy Commissioner in that portion of Isa Khel Tahsil which was not taken up in this Settlement and where changes of cultivation have been great. Thus records can stand the test for a long time provided that quadrennial attestations are conducted carefully.

Keeping in view all these facts I recommend, for Settlement, a thirty years' period to commence from *Kharif* 1926, *Kharif* 1927 and *Kharif* 1928 for Bhakkar, Isa Khel and Mianwali tahsils, respectively. There should however be a condition that the assessment of an assessment circle shall be subject to revision if and when irrigation is given to it from the projected Sind Sagar Canal.

CHAPTER V.—OTHER MATTERS CONNECTED WITH ASSESSMENT.

47. The present dates for the payment of revenue will continue. These are:—

Instalments of land revenue and dates of payment.

Kharif	...	...	{ 15th December 15th January
Rabi	...	...
			15th July.

In the case of purely fluctuating assessment, the land revenue actually assessed on cultivation in each harvest will be realized as the instalment

for that harvest, as at present. Regarding the remaining assessment also present arrangements will continue which are as follows:—

Detail.	PROPORTION REALIZED WITH	
	Kharif instalment.	Rabi instalment.
Revenue on—		
(i) Wells under Thal system of assessment ...	Nil	Whole.
(ii) Date Palms ...		
(iii) Water mills ...		
(iv) Grazing lands in villages wholly or partly lying in the riverain.		
(v) Barani and grazing jama in villages lying wholly in the Thal.	Whole ...	Nil.
Revenue on—		
(i) The Powah close to Bhakkar Town ...	One-third ...	Two-thirds.
(ii) Camels ...		
Khudri circle { 3 estates ...	One-third	Two-thirds.
{ 12 estates ...	One-half ...	One-half
<i>Isa Khel Tahsil.</i>		
Fixed revenue in—		
Pakka circle One estate ...	One-half ...	One-half.
Bhangi Khel circle Two estates ...	One-half ...	One-half.
Nabri circle Five estates ...	One-quarter ...	Three-quarters.

The provision regarding the deferring of collection to the next *Rabi*, of the *Kharif* demand of a village falling short of Rs. 20 has been omitted from the new Dastur ul-amal. On receipt of approval of the Dastur-ul-Amal, the present arrangement of such collections will discontinue.

48. No change has been made in the cesses as the result of re-settlement. They are now payable as:—

Cesses.

		Rs.	A.	P.	
Local rate	...	12	8	0	per cent of land revenue.
Lambardari	..	5	0	0	" " " " "

49. Progressive assessments that have been sanctioned are given below:—

Progressive assessment.

(i) *Fixed assessment.* Recovery of one-half of the assessment imposed on *barani* cultivation in Thal Kalan and Daggar circles of Bhakkar Tahsil and upland portion of the Sadat Miani has been deferred for the first five years of the introduction of the new assessment. During this period, for purposes of distribution, the area sown as *barani* in a village will be assessed at $\frac{1}{2}$ of the rate fixed for it. A sum of Rs. 18,683 will thus be annually deferred.

(ii) *Fluctuating assessment.* In Mianwali Tahsil, in the Pakka circle and the upland portion of the Kacha, recovery of the portions of assessment brought out in a village at the undermentioned portions of the all-round rate will be deferred for the period noted

(a) any increase over the previous all-round rate exceeding 33 per cent. for five years, and

(b) any excess exceeding 66 per cent. enhancement over the previous rate, for ten years.

The sums thus deferred are estimated to amount as follows :—

Assessment Circle.	ESTIMATED DEMAND DURING	
	Five years commencing from Kharif 1928.	Five years ending Rabi 1938.
	Rs.	Rs.
Kacha	2,923	2,086
Pakka	5,137	1,729
Total	11,060	3,815

50. For wells sunk or repaired since Settlement, protective leases have been granted under the rules sanctioned at last Settlement. According to these rules a newly sunk well was granted a certificate of exemption for a period not exceeding twenty years; while such period extended to 10 years in the case of an old repaired well. In the uplands, during the period of exemption there was remitted—

(i) in the case of fixed assessment, the whole of the revenue assessed at Settlement on such wells, but if a well was sunk subsequently to the Settlement, the revenue, if any imposed at Settlement in the unirrigated aspect of its lands continued to be paid during the currency of the Settlement, and

(ii) in the case of the fluctuating assessment, the whole *jama* of the land irrigated from such a well.

In the riverain portion remission during the period of exemption used to be of—

(i) one-fourth of the revenue demand assessable by crop rates and

(ii) the whole of the *jama* chargeable on the I Class crops, by the additional rate, if any, imposed on the well

These rules, will, of course, continue for Isa Khel Tahsil and their continuance has also been sanctioned for Bhakkar Tahsil and Sadat Miani Circle of Mianwali Tahsil. For the remaining portion of Mianwali Tahsil, proposal has been made in my letter No. 972, dated 23rd June 1928, and orders are awaited. If any change is sanctioned, the same will be incorporated Appendix VII in which the last Settlement rules have been reproduced.

51. Rules for remission of fixed assessment on wells were sanctioned at last Settlement for—

Remission of fixed assessment on wells.

(i) Powah tract in Tahsil Bhakkar,

(ii) Khudri Circle in Tahsil Mianwali,

(iii) Village Kala Bagh in Tahsil Isa Khel.

Even now these are the only localities for which such rules are required.

According to these rules, the Deputy Commissioner had power to remit the whole of the demand assessed on the land irrigated from a well when it ceased to be fit for use. If such a well was repaired or replaced by a new one, the whole of such demand was re-imposed on the expiry of the period allowed in the certificate of exemption granted for it.

These rules will of course remain in force for Isa Khel Tahsil. Their continuance, for Bhakkar Tahsil and Sadat Miani Circle of Mianwali Tahsil, has already been sanctioned, and for the remaining portion of the latter tahsil has been recommended in my letter No. 972, dated 23rd June 1928.

52. Classification of estates as secure and insecure made at last Settlement and scheme for the working of suitable and with a small modification regarding danger rates have been recommended for continuance. These will be found in Appendix VIII.

53. Revenue assignments in the whole of the district were examined and attested. A case was discovered in which a disciple of a holder of a life assignment at last Settlement was found to have been enjoying the assignment without authority. Seven cases of the grants for road-side wells in Bhakkar Tahsil have been recommended for resumption in consequence of breach of conditions. New English registers have been prepared and submitted. Vernacular registers will be prepared on receipt of orders.

Excluding petty *muafis* held in lieu of the privilege of grazing camels without payment of *tirni*, in Isa Khel Tahsil, for which a separate reference has been made, the present state of assignments is as follows:—

Tahsil.	Particulars.	DETAIL OF ASSIGNMENTS.										Total	
		In perpetuity.		During the pleasure of Government.		For the term of Settlement.		For life.					
		To individuals.	For maintenance of institutions.	For road-side wells.	Others.	For road-side wells.	Others.						
Bhakkar	Number	8	10	56	10	2	5	6	97	Rs.	13,076	35	Rs.
	Annual value	11,195	611	839	226	52	108	105	Rs.			35	Rs.
Mianwali	Number	8	...	...	9	...	15	3	Rs.	540	9,604	22	Rs.
	Annual value	2,218	...	...	6,708	...	143	...	Rs.			22	Rs.
Isa Khel	Number	1	...	...	9	...	6	7	Rs.	336	9,653	...	Rs.
	Annual value	6,440	...	...	2,716	...	81	...	Rs.			...	Rs.
Total	Number	17	10	56	27	2	26	16	154	Rs.	32,331	...	Rs.
	Annual value	19,763	611	869	9,675	52	332	1,031	Rs.			...	Rs.

This statement excludes also the only one new *muafi* of land revenue estimated at Rs. 7 that has been recommended by me for term of Settlement in favour of a mosque.

54. The provisions of Senior Secretary to Financial Commissioners' letter No. 252-R., dated 4th February 1925, have been extended to Tahsils Bhakkar and Mianwali excluding the riverain portion of Kacha circle in the latter, in the case of fluctuating assessments. According to these, an agricultural land converted into sites under buildings will be assessed at the highest rate per harvest, leviable in the assessment circle to which the land belongs. Such rates have been entered in the Records-of-Rights.

CHAPTER VI—MISCELLANEOUS.

55. Crown lands in the district consist of—

Crown lands.

- (1) Government Rakhs. (a) in the riverain, and (b) in the upland;
- (2) Isolated plots in various estates. (These are known as Chaks in the riverain);
- (3) a few wells in the Thal of Bhakkar Tahsil; and
- (4) encamping grounds, canal, roads, sites of bungalows, etc.

All the 24 Rakhs in Bhakkar Tahsil of the kind mentioned in (1) (a) and (b) above with the exception of portions of (2) are given out for collecting grazing fees, on leases to be annually renewed. The amount of these leases was sanctioned at Rs. 17,200 as proposed by me, but subsequently in Deputy Secretary to Government Punjab's letter No. 2040-R., dated 17th May 1928, it was reduced to Rs. 11,350, out of which the sum of Rs. 2,190 is to be deferred for five years. A portion of one Rakh in that Tahsil has been leased out for cultivation for ten years, for the present, at the fluctuating rates of the Kacha circle *plus malikana* at 25 per cent. (*vide* Senior Secretary's letter No. 597-R., dated 11th March 1927). A portion of another Rakh in that Tahsil and about 4/9ths of each of the nine Rakhs in the Thal of Mianwali Tahsil are leased out for temporary cultivation, under authority of the Secretary to Government, Punjab, Revenue Department, letter No. 2814-R., dated 8th August 1928. Rent for such cultivation has been raised to Rs. 2-8-0 per acre matured subject to a minimum of Re. 1 per acre for the area leased.

As regards the remaining portions of the Mianwali Thal Rakhs, in letter No. 914-G., dated 16th June 1928, I have made alternative proposals—

- (i) to extend the temporary cultivation to these portions also, or
- (ii) to sanction the continuance of the expiring Settlement arrangements under which they are leased out annually at Rs. 3,788 for collecting grazing fees.

Sanction has also been received to renewal, for term of Settlement or other fixed term, of leases for cultivation, in two chaks in the riverain of Mianwali Tahsil (*vide* Junior Secretary to Financial Commissioners and Deputy Secretary to Government, Punjab's letter No. 3022-R., dated the 6th September 1928).

Orders are awaited regarding renewal of leases, for one chak in Isa Khel Tahsil and a small area in the only one Rakh of Khudri circle. The remaining one rakh in the riverain of Mianwali Tahsil and all the riverian chaks of the class mentioned in (2) are being managed by Deputy Commissioner in compliance with Revenue Secretary to Government, Punjab letter No. 17519-Rev., dated 24th July 1919. Deputy Commissioner also manages the remaining plots mentioned in (2) and wells mentioned in (3) above.

Records-of-Rights for all of these chaks and rakhs have been revised in this Settlement.

56. Nammal and Kurram Canals, various hill torrents and all Indus canals within the district, have been notified under schedule I of Act III of 1905 and are all controlled by Deputy Commissioner. For looking after the arrangements relating to all of them excepting Nammal Canal a small irrigation (*abpashi*) establishment has been entertained on the proceeds of the recoveries made under Section 27 (C) of the above Act known as Nagha fines.

The proceeds of the rates levied for use of water from Nammal Canal are credited to General Revenues.

57. *Patwaris and Kanungos*.—The following increase in the Patwari and Kanungo staff has been sanctioned :—
Revision of Revenue Staff.

Tahsil.	DETAILS.		
	Field Kanungos.	Patwaris.	Assistant Patwaris.
Bhakkar	2	20	3
Mianwali	1	4	3
Ira Khel	1	6	...
Total	4	30	6

Increase sanctioned for Ira Khel is only temporary for four years for the present (*vide* Senior Secretary to Financial Commissioners letter No. 669-R., dated 17th March 1927).

The present total strength is distributed as follows :—

Tahsil.	KANUNGOS.		Patwaris.	Assistant Patwaris.	REMARKS.
	Field.	Office.			
Bhakkar	7	1	89	6	*It includes Sadar Kanungo, his Assistant and the Special Kanungo.
Mianwali	8	1	86	10	
Ira Khel	5	1	43	5	
District Record Room ... ..	...	3*	...	...
Total	20	6	219	21	

In addition, Deputy Commissioner has also been given powers with Commissioner's sanction to entertain, during the period of any crop inspection, for the purpose of crop inspection and judging *Kharaba*, the following additional staff :—

Tahsil.	Field Kanungos.	Patwaris.
Bhakkar	4	10
Mianwali and Ira Khel	10	10

The period of entertainment of such additional staff is not to exceed two months at a time.

Naib-Tahsildars.—There are already two Naib-Tahsildars permanently attached to each Tahsil, and in Senior Secretary to Financial Commissioners and Deputy Secretary to Government, Punjab, Revenue Department's No. 809-E., dated 25th May 1926, sanction has been received for entertainment of one extra Naib-Tahsildar in Bhakkar Tahsil for a period of two months at each harvest.

58. The graded system of Zaildars was introduced at last Settlement, and the number and emoluments of various grades were sanctioned as follows :—

Tahsil.	1st Grade, Rs. 200.	2nd Grade, Rs. 150.	3rd Grade, Rs. 100.	Total.
Bhakkar ...	3	5	6	14
Mianwali ...	2	5	4	11
Isa Khel ...	2	2	2	6
Total ...	7	12	12	31

Subsequently one Zail was increased in Mianwali Tahsil and one in Bhakkar Tahsil.

As a result of revision at this Settlement the emoluments of Zaildars have been increased. The strength of various grades now stands as follows :—

Tahsil.	1st Grade, Rs. 350.	2nd Grade, Rs. 300.	3rd Grade, Rs. 200.	Total.
Bhakkar ...	3	5	7	15
Mianwali ...	2	4	6	12
Isa Khel ...	1	2	3	6
Total ...	6	11	16	33

The total amount payable to Zaildars will be nearly equal to 1.6 per cent. of the total estimated revenue of the district.

59. In Bhakkar Tahsil and Sadat Miani villages of Mianwali tahsil, *inams* are intended to be perpetual and compensatory in nature. As a result of revision, these *inams* have been held to consist of two classes :—

Class I.—Those *inams* which are still held in the families of the original grantees.

Class II.—Those *inams* which are now held in families different from those of the original grantees.

The present number of these classes is exhibited below :—

	Class I.	Class II.	Total.
Tahsil Bhakkar	42	15	57
Sadat Miani circle	3	1	4
Total	45	16	61

The arrangement sanctioned for the future is as follows :—

When a vacancy occurs in class I, the *inam* will ordinarily be granted to a relative under Punjab Government Notification No. 119, dated 26th March 1909, but if no suitable relative is forthcoming, it may, with Commissioner's sanction, be abolished and its value transferred to increase an existing Class first *inam*, or again with Commissioner's sanction, it may be re-granted to an outsider and passed to Class II.

When a Class II *inam* falls vacant, it will be treated under the land revenue rules and re-granted to the most suitable person without regard to hereditary claims. It may not be abolished unless the equivalent of the *inam* is distributed over other *inams* in this class.

For Isa Khel Tahsil and the remaining portion of Mianwali Tahsil, there was sanctioned graded system of *inams* at last Settlement with emoluments :—

I Grade.

Rs. 75

II Grade.

Rs. 50

III Grade.

Rs. 25

On revision, sanction has been received to increase emoluments of the various grades and alter the number of *inamdars* in each grade as follows :—

Grade.	No. of <i>inamdars</i> in the grade.	Emolument of the grade.
		Rs.
I	8	130
II	5	100
III	9	70

The total amount absorbed in these *inams* will be equal to .5 per cent. of the estimated revenue of the corresponding tract.

60. A scheme for gradual reduction of superfluous posts of *Lambardars* in Tahsils re-assessed has been prepared in accordance with the directions laid down in paragraph 330 of Land Administration Manual. The registers embodying that scheme have been forwarded to the Deputy Commissioner for reference when a vacancy occurs.

61. Sanction has been received for recovery of Rs. 1,241, on account of cost of settlement from *Jagirdars* in Bhakkar Tahsil. No recovery on this account is to be made in the remaining tahsils.

62. As no important changes have occurred since the last edition of the Gazetteer, therefore Government has agreed to the postponement of the revision of its descriptive portion (Under-Secretary to Government, Punjab, Revenue Department, letter No. 2838-R., dated 13th August 1928).

63. In my letter No. 1038 G., dated 20th July 1928, I have reported that no special revision of the Riwayat-i-Am is necessary and that certain defects that have been discovered may be removed by issue of correction slips. Orders are awaited.

64. The Dastur-ul-Amal prepared at last Settlement has been revised and submitted to Commissioner. After his approval, it will be translated in vernacular and both editions will be printed, for supply to all concerned.

65. The following subjects are suggested as requiring the attention of Deputy Commissioner :—
Matters requiring the attention of Deputy Commissioner.

(1) A careful watch should be kept on the assessment of the houses built upon lands paying, or liable to pay, revenue at Settlement (Paragraph 54 *ante*). A statement should be called for, after each Girdawari, to ascertain what action is being taken in this connection.

(2) Unfortunately cattle enumeration lists in Thal villages of Bhakkar Tahsil and upland portion of Sadat Miani circle in Mianwali Tahsil have not been preserved as required by paragraph 31 of the last Settlement Final Report. It should be seen that such lists are preserved in future till partition of *shamilat* lands.

66. Fifty-seven officials including one Extra Assistant Commissioner, and one Naib-Tahsildar, and 2 Extra Assistant Commissioner, 2 Tahsildar, 7 Naib-Tahsildar, and 44 Kanungo candidates received training during the progress of the Settlement. To such of them as belonged to this province, more than Rs. 14,000 was paid out of the Settlement funds as subsistence allowances.

67. The Bhakkar Settlement commenced in October 1923 and before it was completely finished, re-measurements in the riverain of Tahsils Mianwali and Isa Khel started in January 1926 and regular Settlement in the former Tahsil began on 1st April 1926. Due to the tract having been mostly under the fluctuating assessment, a great deal of the time of the staff was taken, every harvest, in Girdawari and preparation of Assessment statements. The commencement of work in Mianwali Tahsil in hot weather also hampered progress of the work. The assistance of the Survey Department that was at first considered necessary in re-measuring hilly tracts was afterwards dispensed with under orders of Financial Commissioner and this entailed employment of more staff and additional expenditure. Orders on Assessment Report of Mianwali Tahsil were received late at the end of June 1928. An extension had to be given to one Naib-Tahsildar for *bachh* work for one month, and to the Settlement Officer and to his reduced office staff for five months which ended on 31st August 1928 when Settlement operations terminated.

Every possible endeavour was made to economise expenditure and to reduce the staff as soon as it was found that it was no longer required. One Naib-Tahsildar and five Kanungos were brought under reduction on 1st October 1927, six months before the sanctioned period expired on 31st March 1928. The Settlement has cost Rs. 3,35,962 in four years and 11 months of its duration as against Rs. 3,60,077 sanctioned for the original term of 4½ years. Details of expenditure are given in Appendix IX. Of this sum, Jagirdars will pay Rs. 1,241 as their contribution. The net cost to Government, will be realised in less than three years from the estimated increase in revenue.

68. I held charge of the Settlement throughout from the 8th October 1923 to the 31st August 1928, being designated as Extra Assistant Settlement Officer in Charge, Settlement Operations, Bhakkar, up to 31st March 1926, and as Extra Assistant Commissioner in Charge, Settlement Operations, Mianwali, thereafter.

My acknowledgments are due to the whole of the Settlement Supervising Staff. With but few exceptions, every one of them spared no pains in seeing that the work was finished in time. In all 4 Tahsildars, 19 Naib-Tahsildars and 68 Kanungos were employed, but at any one time the number never exceeded one in the case of Tahsildars and 8 and 32 in those of Naib-Tahsildars and Kanungos, respectively. Out of them the following deserve special mention :—

Chaudhri Jalal Khan was in Charge of Settlement work of Bhakkar Tahsil and did well on the whole. The work went on smoothly in his tahsil and was finished in time. The Settlement was very lucky in having Raja Ali Muhammad as Tahsildar in Mianwali Tahsil. He had a good experience of Settlement work and gave a good start to the work which had not fully begun when he joined on 10th August 1926. He was a very reliable, honest and able officer and his work was excellent in every way. He had worked only for 8½ months when in April 1927, his services were rewarded by his appointment as Extra Assistant Commissioner. His successor M. Mohammad Naim was an experienced, hardworking and trustworthy officer. He did very well and by untiring efforts finished in time the final attestation of villages which was a heavy work.

Among the Naib-Tahsildars in the field, M. Fateh Chand was the best in Bhakkar Tahsil. He was a capable, energetic, tactful and very reliable officer. He was placed in charge of a very large and difficult circle which he managed in an efficient way. He achieved a great popularity with the staff and the people. He had worked in the field for nearly two years, when on the readers's post having fallen vacant, he was put in office. Both in the field and in the office his work was very good. Before the Settlement came to an end his services were rewarded by his being selected as Assistant Jailor in the Jail Department. M. Ishar Dass worked very hard and conscientiously. He won full confidence of both the subordinates and the zamindars.

In Mianwali Tahsil Chaudhri Aurangzeb Khan earned a great reputation for being honest. The circle of which he had the charge, was backward when he joined the Settlement in December 1926, but by unremitting energy and continuous hard work, he managed to finish it just in time. His work was uniformly good and his services have been rewarded by his being accepted as Extra Assistant Commissioner candidate. M. Ishar Singh was industrious and tactful and his work was quite satisfactory. He managed to keep work in his circle, ahead of the rest of the tahsil. On the post of a Naib-Tahsildar having been brought under reduction in October 1927, he was given charge of a very backward circle in addition to his own, and he managed both efficiently. Chaudhri Mohammad Haidar Khan had charge of a very difficult circle which he handled well. He was active and industrious, and did good work.

The post of my head clerk was held by M. Vidya Rattan up to 31st March 1926 and by M. Shambu Nath afterwards up to 14th June 1928. Each has done good work in his time. The former was quite new for a Settlement Office when he joined, but proved hardworking, trustworthy and useful. My acknowledgments are due to both.

Qazi Ghulam Rasul was the first reader to join Bhakkar Settlement. He made himself useful during his very brief stay. He was succeeded by M. Kishan Singh who was very reliable, conscientious, painstaking and thorough. I was very sorry to lose the advantage of his services on his transfer in September 1925, to his own (Jullundur) Division. During a short leave vacancy, M. Lakh Raj also proved very hardworking, reliable and honest.

Mohal Tahsildars and Naib-Tahsildars were also associated in Settlement work and a considerable assistance was given by the following :—

Tahsil.	Tahsildars.	Naib-Tahsildars.
Bhakkar	Raja Sakandar Khan	R.S. Pt. Faqir Chand
Isa Khel	Ch. Sadiq Ali	M. Kahan Singh
Mianwali	M. Ahmad Khan	M. Abdul Khaliq Khan.

M. Shahwali Khan was very energetic and reliable. He completed his training in this Settlement and has repaid his obligation to the Settlement by doing much hard and useful work. He was best of all the Kanungos in the field. **M. Sultan Mahmud** was a thorough, steady and quiet worker and proved very useful during his limited stay. Excepting a short period in the beginning, **M. Nand Lal** was Nazir throughout. He proved very reliable and useful. His work was uniformly excellent.

M. Kanhya Lal was especially selected as assessment clerk. His thoroughness and extreme usefulness in figures has been of incalculable assistance to me. He was very industrious and painstaking. **M. Indar Singh** also rendered useful service in office particularly at the close of the Settlement.

69. Orders are required on the following points :—

Orders required.

- (1) Assessment of wells under Thal system of assessment, not assessed at Settlement (Paragraph 45).
- (2) Term of Settlement (Paragraph 46).

70. A few odd draft paragraphs of this report had been written before 31st August 1928 when I proceeded on leave. This report has been completed in the period of my leave

Conclusion.

27th October 1928.

GANDA SINGH,

EXTRA ASSISTANT COMMISSIONER,

In Charge Settlement Operations.

GLOSSARY OF VERNAOCULAR TERMS USED IN THE REPORT.

<i>Bachh</i>	...	...	...	Distribution of revenue over holdings.
<i>Bajra</i>	..	...	...	Bulrush millet.
<i>Batai</i>	...	..	...	Landlord's share by division of produce.
<i>Bhang</i>	...	...	...	A variety of intoxicating drug.
<i>Chanda</i>	...	...	...	Station fixed on the ground.
<i>Chari</i>	...	...	...	Great millet used as fodder.
<i>China</i>	..	...	...	A cereal (<i>Panicum miliaceum</i>).
<i>Dastur-ul-Amal</i>	...	...	...	Code of instructions.
<i>Jogirdar</i>	...	...	...	An assignee of land revenue.
<i>Jama</i>	...	...	...	Revenue demand.
<i>Jawar</i>	...	...	...	Great millet.
<i>Jhallar</i>	...	...	...	A persian wheel for lifting water from a channel or pond.
<i>Karm</i>	.	...	..	A lineal measure equal to 5½ feet.
<i>Khar</i>	...	...	...	Barilla plant.
<i>Kharaba</i>	...	...	...	Crop failure.
<i>Kharif</i>	...	...	...	Autumn harvest.
<i>Khatauni</i>	...	...	...	Holding slip.
<i>Lambardar</i>	...	...	..	Village headman.
<i>Malikana</i>	...	..	...	Proprietary due.
<i>Mash</i>	...	..	...	A pulse (<i>Phaseolus Rorburghii</i>)
<i>Massar</i>	...	..	...	Lentil.
<i>Mauud</i>	...	...	...	A measure of weight equal to 82½ lbs.
<i>Moth</i>	...	...	...	A pulse (<i>Phaseolus aconitifolius</i>).
<i>Mujmali</i>	...	...	...	A collective map.
<i>Muafi</i>	...	...	...	Assignment.
<i>Mung</i>	...	...	...	A pulse (<i>Phaseolus mungo</i>).
<i>Nullah</i>	...	...	..	Artificial or flood channel of the river.
<i>Paimana</i>	...	...	...	Measurement.
<i>Paimana kat</i>	...	...	...	A process of reproducing a field on a map by means of a scale from another map.
<i>Patwari</i>	...	..	...	The village revenue accountant.
<i>Powah</i>	...	...	...	Vicinity of a town.
<i>Riwaj-i-Abpasi</i>	...	...	...	A statement of rights in irrigation by sources other than wells.
<i>Rasan</i>	..	...	...	Cattle.
<i>Riwaj-i-Am</i>	...	...	...	Customary Law.
<i>Samukha</i>	...	...	...	A cereal (<i>Oplisminum frumentaceum</i>).
<i>Sarshaf</i>	...	...	..	Rapeseed.
<i>Saunf</i>	...	..	...	A drug (<i>Anisi</i>).
<i>Shumilat</i>	...	..	...	Village common land.
<i>Shutran</i>	...	...	...	Camels.
<i>Tara-mira</i>	...	..	...	<i>Brasica eruka</i> .
<i>Tarmim</i>	...	...	...	Map corrections.
<i>Tirni</i>	...	...	...	Grazing dues.
<i>Til</i>	...	...	...	Sesamum.
<i>Tatima Shajras</i>	...	..	...	Supplementary maps.
<i>Zabtiana</i>	...	..	..	A cash cess levied on valuable crops, under native rule.
<i>Zamindar</i>	...	...	...	Land owner.



APPENDIX 1.

Principal Gazette Notifications.

No.	Date.	Department.	Contents.
91-831-23-1-10506	1-9-23	Financial Commissioner and Secretary to Government, Punjab, Revenue.	Declares that a general re-assessment of the land revenue of the Bhakkar Tahsil and Sadat Miani villages of the Mianwali District is about to be undertaken.
91-831-23-1-10507	1-9-23	Do.	Directs that the Records of Rights of the area specified in the above notification shall be specially revised.
27303... ..	21-9-23	Home Gazette...	Appoints S. Ganda Singh as Extra Assistant Settlement Officer, Bhakkar and Sadat Miani villages with effect from 8th October 1923.
30249... ..	24-12-23	Do.	Confers upon S. Ganda Singh, powers to hear and determine the suits mentioned in the first group in sub-section (3) of Section 77 of the Punjab Tenancy Act, 1887, within the limits of the Mianwali district.
30250... ..	24-12-23	Do.	Confers upon S. Ganda Singh the powers of a Collector, under the Punjab Land Revenue Act, 1887, to hear and determine appeals from the orders and decrees of Assistant Collectors of II Grade within the limits of Bhakkar Tahsil and Sadat Miani villages of the Mianwali district.
30251... ..	24-12-23	Do.	Confers upon S. Ganda Singh the powers of a Collector, under the Punjab Tenancy Act, 1887, to hear and determine appeals from the orders and decrees of Assistant Collectors of II grade within the limits of Bhakkar Tahsil and Sadat Miani villages of the Mianwali district.
10184-Gaz. ...	2-4-24	Do.	Confers upon S. Ganda Singh all the powers of a Collector, under the Punjab Land Revenue Act, 1887, and the Punjab Tenancy Act, 1887 (with the exception of Chapter VI of the former) with a further direction that in exercise of these powers, S. Ganda Singh shall be subject to the control of the Collector of the Mianwali district.

No.		Date.	Department.	Contents.
240-R...	...	28-1-26	Financial Commissioner and Secretary to Government, Punjab, Revenue.	Declares that a general reassessment of the land revenue of the under-mentioned areas of the Mianwali district is about to be undertaken :— (1) The Isa Khel Tahsil and (2) The Mianwali Tahsil excluding the 12 Sadat Miami villages.
241-R	...	28-1-26	Do.	Directs that the Records of Rights of the area specified in the above notification shall be specially revised.
10654-C-Gaz.	...	1-4-26	Home Gazette...	Confers on S. Ganda Singh all the powers of a Collector under the Punjab Land Revenue Act, 1887 and the Punjab Tenancy Act, 1887 (with the exception of Chapter VI of the former Act) with a further direction that in exercise of these Powers S. Ganda Singh shall not be subject to the control of the Collector of the Mianwali district.



Appendix II.

Statement showing assessment rates sanctioned at last Settlement (Tahsil Bhakkar and Sadat Miani circle 1903-04, and the rest of the Mianwali Tahsil 1907-08).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Tahsil	Name of Assessment Circle.	FIXED (PER ACRE OF CULTIVATION).										FLUCTUATING (PER ACRE OF MATURED CROPS).									Additional rate on I Class Chahi Sali crops.
		Chahi.	Nahri.	Abi.	Nahri or Ghandi.	Kasledar.	Maira.	Sunn.	Taq. Guyan or Govt.	Barahi.	Chahi.	Nahri.	Abi.	Nahri and Abi.	Kasledar.	Maira.	Class I.	Class II.	Class III.		
Lahore.	Bhangi Khal	Rs. A. P.	As.	As.	As.	As.	As.	As.	As.	As.	Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.	As.	As.	Rs. A. P.	Rs. A. P.	As.	As.	
	Pakka	..	15	..	..	..	..	6	2	..	1 7 0	1	1 7 0	0 15 0 + 0 4 0	15	..	..	..	..	..
	Nahri	..	15	..	1	..	7	7	7	7	..	1	..	..	..	..	..	..	..	..
	Kacha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 9 0	1 0 0	8	..
Mianwali.	Khudri	..	..	13	13	7	7	7	7	..	0 12 0 + 0 4 0	..	{ 0 12 0 + 0 4 0 }	12	..	..	..	..	..	..
	Pakka	..	..	..	..	..	..	..	..	..	1 2 0	..	{ 0 12 0 + 0 4 0 }	14	10	..	..	..	..	..
	Kacha	..	..	..	..	..	..	..	..	..	..	..	{ 0 12 0 + 0 4 0 }	..	..	1 8 0	1 0 0	8	Maximum Minimum Average	
	Dager	..	..	0 9 6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bhakkar.	Thal Kalan	..	..	0 9 0	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..
	Pakka	..	..	4 0 0	..	..	..	..	..	..	..	..	..	..	..	{ 1 12 0 1 4 0 1 7 0 }	0 14 0	6	Maximum Minimum Average	
	Kacha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	{ 1 10 0 1 2 0 1 6 0 }	0 14 0	6	Maximum Minimum Average	
	Kacha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Appendix III.

STATEMENT SHOWING RATES OF YIELD ASSUMED PER ACRE AS APPROVED BY FINANCIAL COMMISSIONER.

Staple.	MIAHWALI TAHSIL.									
	Kacha and Pakha Circles.					Khudri Circle.				
	Chahli.	Chahli-Sailab.	Nahri.	Abli.	Sailab.	Hall.	Nahadary.	Barani.	Chahli.	Abli.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Wheat	10	10	9½	10	6	7½	7½	5	10	8
Barley	10	10	9½	10	7	7½	7½	5	10	8
Gram	3	7	7	3	6	5	5	3	3	3
Taramira	4	...	4	...	3	3	3	3	4	4
Sarahaf	...	...	...	...	4	4	4	4	...	...
Mesar	...	...	...	...	4	...	...	...	...	...
China	8	7	8	...	5	...	...	...	...	...
Bajra	8	6	6	...	4½	7	7	4½	5½	5½
Jowar	8	6	6	...	4½	6	6	4½	5½	5½
Moth	...	...	4	...	4	4	4	4	...	...
Mung	...	...	3	...	2½	3	3	2	...	...
Mash	...	...	4	...	3	3	3	3	...	...
Tu	5	5	4	...	3	3	3	3	...	...
Cotton	...	...	...	...	...	...	...	...	...	...
Tobacco	35	35	35	35	35	35	35	35	35	35
Melons	12	12	12	12	12	12	12	12	12	12
Maize, Chari, Kharif	10	10	10	10	8	10	10	8	10	10
Fodder.	30	30	30	30	30	30	30	30	30	30
Chillies and vegetables	40	40	40	40	40	40	40	40	40	40
Fruits	10	10	10	10	8	10	10	8	10	10
Turnips, Carrots, Peas and other Rabi Fodder.	20	20	20	20	20	20	20	20	20	20
Hemp	...	...	...	...	...	...	...	...	...	...
Others	5	5	5	5	5	5	5	5	5	5
Sugarcane	...	...	...	...	...	...	...	...	...	...
Spices	...	...	...	...	...	...	...	...	...	...

APPENDIX III--continued.

Staple.	TABLE BHAKKAR.															
	Kacha.				Pakka.				Daggar.				Thal Kalan.			
	Chabi-Sallab.		Sallab.		Chabi-Sallab.		Sallab.		Chabi.		Barani.		Chabi.		Barani.	
	M.	s.	M.	s.	M.	s.	M.	s.	M.	s.	M.	s.	M.	s.	M.	s.
Jowar ...	6	0	4	20	6	0	4	20	5	20	2	0	5	0	2	0
Rajra ...	7	0	4	0	7	0	4	0	7	0	3	0	7	0	3	0
Mung ...	4	0	4	0	4	0	4	0			3	0			3	0
Mash and other Pulses.	4	20	4	0	4	20	4	0			3	0			3	0
Moth ...	4	20	4	0	4	20	4	0	3	0	3	0	3	0	3	0
Til ...	3	0	2	20	3	0	2	20			2	0			2	0
Cotton ...	5	0	3	0	5	0	3	0	5	0	3	0	5	0	3	0
Hemp ...	4	0	4	0	4	0	4	0								
China ...	8	0	5	0	8	0	5	0	8	0	5	0	8	0	5	0
Wheat ...	9	0	6	0	9	0	6	0	9	0	4	20	9	0	4	20
Barley ...	9	0	6	0	9	0	6	0	10	0	4	20	9	0	4	20
Gram ...	6	0	5	0	6	0	5	0	6	0	3	20	6	0	3	20
Massar and other pulses	5	0	4	0	5	0	4	0								
Taramira ...	3	0	3	0	3	0	3	0	4	0	3	0	4	0	3	0
Sarshuf ...	4	0	4	0	4	0	4	0	4	0	3	0	4	0	3	0
Kharif } Fooder	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.
Rabi }	10	0	8	0	10	0	8	0	10	0	8	0	10	0	8	0
Other Kharif and Rabi	5	0	5	0	5	0	5	0	5	0	5	0	5	0	5	0
Sugarcane ...	100	0			100	0			100	0						
Pean, carrots and turnips ...	10	0	8	0	10	0	8	0	10	0	8	0	10	0	8	0
Tobacco ...	35	0	35	0	35	0	35	0	35	0	35	0	35	0	35	0
Melons and Water melons ...	12	0	12	0	12	0	12	0	12	0	2	0	12	0	2	0
Fruits, vegetables, spices, chillies, etc.	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0
Bhang, saunf and coriander.	25	0	25	0	25	0	25	0								

APPENDIX IV.

RULES FOR COLLECTION OF LAND REVENUE ON WELLS UNDER THAL SYSTEM OF ASSESSMENT.

I. No assessment will be levied on a well which has not been worked during the year, or on which the total area under crop in the year is less than one acre.

II. When a well is held in defined shares and the land attached to the well is divided according to those shares, no assessment will be levied on any share in the well holding which has not been cultivated during the year or on which the total area under crop in the year is less than half an acre. When no part of a share has been cultivated as *chahi* land, but a part of it is cultivated as *barani* land, no assessment shall be levied by Government, but it shall be treated as if it were *barani* land for the purposes of the Village *Bachh*.

NOTE.—The *barani* cultivation shall not be taken into account in judging whether a well or holding is or is not in use under Rules I and II.

III. When a well and the land attached to it are held jointly, the Settlement Officer will fix the area to be considered as representing the area under cultivation when the well is fully at work, and whenever an area equal to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or $\frac{7}{8}$ of that area remains uncultivated, a corresponding fraction of the assessment fixed for the well at Settlement shall be remitted.

NOTE.—If less than $\frac{1}{4}$ th of the area remains uncultivated, no remission need be granted. If more than $\frac{1}{4}$ th but not more than $\frac{1}{2}$ rd is uncultivated, $\frac{1}{4}$ th of the *jama* will be remitted, and so on. If more than $\frac{3}{4}$ ths is uncultivated, then $\frac{3}{4}$ ths of the *jama* will be remitted, unless the area sown is less than one acre, when no part of the *jama* of the well will be recoverable.

The area under crop which should represent the full working capacity of a joint well has been fixed for every well and shown in a list attached to every Settlement Record. Copies of these lists have also been supplied to the Sadar Kanungo for purposes of checking the returns.

IV. When wells are partitioned after Settlement, the Officer making the partition shall in his final order distribute the revenue of the well over the shares, and the collection of revenue will then be made under Rule II.

NOTE.—Similarly wells partitioned temporarily owing to mortgage, etc., and becoming joint thereafter will be dealt with under Rules I and III.

V. Every well or share of a well at work during the year shall (unless protected by a certificate of exemption) be charged the assessment imposed on it at Settlement, and if no assessment was imposed on it at Settlement, the assessment shall be calculated at the rate of Rs. 12 in the Thal Kalan and Rs. 13 in the Daggar and the Sadat Miani Circles, for the well when fully at work.

NOTE.—The sown area on which remissions will be given under Rule III will in such cases be 16 acres.

VI. The demand on wells shall be framed for the whole year after the *rabi* harvest and realized with the *rabi* instalment.

GENERAL NOTE.—If the land attached to a well or holding assessed at Settlement is cultivated with the help of some other well, it shall, for the purposes of assessment under the above rules, be treated as cultivated in the same way as if it were irrigated from the well to which it is attached.

APPENDIX V.

RULES TO REGULATE MODIFICATIONS IN THE GRAZING ASSESSMENTS OF THE KACHA CIRCLE OF THE MIANWALI TAHSIL.

(Paragraph 11 of the orders on the Assessment Report of Mianwali Tahsil excluding the Sadat Miani Villages.)

1. The grazing *jama* is fluctuating with the restrictions given in the succeeding paragraph.

2. When the waste area increases or decreases by 10 per cent. or more, the grazing *jama* will be altered accordingly, provided that the difference in the *jama* amounts to not less than Rs. 10.

3. In villages where the grazing assessment on the waste area at the rate fixed for the village worked out to less than Rs. 20, no grazing *jama* has been assessed. A grazing *jama* will, however, be imposed if the waste area increases sufficiently to be assessable to Rs. 20 or more, and will thereafter be governed by Rule 2.

4. In villages assessed to grazing revenue when the *jama* decreases below Rs. 20, it will be remitted altogether until it can be re-imposed under rule 3.

APPENDIX VI

Statement showing maximum and minimum rates announced in the various Assessment Circle.

NOTE :—The circles or portions of circles having flat rates have not been shown in this statement.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Tahsil.	Assessment Circle.	I CLASS SAILAB CROPS.		ADDITIONAL RATE FOR I CLASS CHANI-SAILAB CROPS.		NAHEL.		CHANI.		NALEDAR AND HAIL.		ABL.		BABANT.		REMARKS.
		Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	
BRAHMA.	Tal. Kelan	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 0 12 6	Rs. A. P. 0 11 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 0 7 0	Rs. A. P. 0 5 0	
	Daggar	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 0 12 6	Rs. A. P. 0 11 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 0 7 0	Rs. A. P. 0 4 6	
	Pakka	Rs. 2 2 0	Rs. 1 10 0	Rs. 0 8 0	Rs. 0 4 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	
	Sadat Miani	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 1 0 0	Rs. A. P. 1 0 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 0 7 0	Rs. A. P. 0 7 0	
MIANWALI.	Kacha	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 1 10 0	Rs. A. P. 1 2 0	Rs. A. P. 1 8 0	Rs. A. P. 1 2 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 1 2 0	Rs. A. P. 0 14 0	
	Pakka	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. 1 8 0	Rs. A. P. 1 0 0	Rs. A. P. 1 10 0	Rs. A. P. 0 12 0	Rs. A. P. 1 8 0	Rs. A. P. 0 12 0	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 1 2 6	Rs. A. P. 0 10 0	
	Khudri	Rs. ...	Rs. ...	Rs. ...	Rs. ...	Rs. A. P. ...	Rs. A. P. ...	Rs. A. P. 1 0 0	Rs. A. P. 0 13 0	Rs. A. P. 1 0 0	Rs. A. P. 0 6 6	Rs. A. P. 1 0 0	Rs. A. P. 1 0 0	Rs. A. P. 0 10 9	Rs. A. P. 0 4 0	

APPENDIX VII.

RULES RELATING TO THE GRANT OF CERTIFICATES OF EXEMPTION OF WELLS AND MASONRY JHALLARS IN THE MIANWALI DISTRICT.

(Paragraph 20 of orders on the Bhakkar and Sadat Miani Assessment Report and Settlement Officer's letter No. 912, dated 23rd June 1928.)

I.—METHOD OF GRANTING EXEMPTION.

(a) *Uplands (including Thal tract of Bhakkar Tahsil, Pakka circles and upland portions of Kacha circles of Mianwali and Isa Khel Tahsils and Khudri circle and upland portion of Sadat Miani circle of Mianwali Tahsil).*

(i) *Villages under fixed assessment.*

1. The necessary exemptions have been granted at the revision of assessments. No additional revenue will be imposed on lands irrigated from any wells that may be constructed or repaired during the term of the new Settlement.

2. When an old well is repaired or a new masonry well is constructed to replace an old well, the revenue assessed at Settlement on the area irrigated from the well shall be remitted, for a term of years in the manner laid down in Part II.

3. If the well is constructed in land already irrigated and assessed at irrigated rates and is worked in addition to the well, a part of the revenue assessed at Settlement proportionate to the area irrigated from the new well shall be remitted for a term of years in the same manner.

(ii) *Villages under fluctuating assessment.*

The whole *jama* of the land irrigated from a new or a repaired well will be recovered during the term of exemption.

(b) *Riverain portions of all three Tahsils.*

1. Crops irrigated by new or repaired wells under certificates of exemption will not only be exempted during the term of the certificates from the additional rate on first class crops (if any), but will also get a remission of one-fourth the Revenue demand assessable by crop rates.

II.—PERIOD OF EXEMPTION.

1. When a masonry well is constructed to irrigate land not previously irrigated the certificate of exemption shall be granted for 20 years.

2. When a well is constructed to irrigate land already assessed at irrigated rates the period may be shortened if in the opinion of the officer granting the exemption, the amount of expenses incurred is not sufficient to require exemption for the full period of 20 years.

3. When an existing well is repaired for the purpose of irrigation, a similar exemption may be given for a period not exceeding 10 years, to be fixed by the officer granting the exemption, with reference to the amount of expenditure incurred in repairing the well.

4. The period of exemption, if less than the maximum, should be so fixed as to allow the owner a reasonable return on his expenditure before that part of the assessment which is due to the existence of the well becomes realizable. In special cases, the Financial Commissioner may sanction the grant of exemption from assessment for a longer period than is allowed by the above rules.

5. No exemption shall be granted for unlined wells. But wells wholly or partially lined with stones or bricks may be granted an exemption, provided that the total amount of exemption does not exceed the cost of the well.

Masonry jhallars constructed to irrigate sailab land will not be assessed to any additional rate during the term of Settlement, but will be entitled to exemption of one-fourth the revenue of crops irrigated therefrom in the manner above described up to a maximum period of 5 years provided that the total amount remitted by the exemption shall not exceed the cost of the work.

The period of exemption should, in every case, end with the agricultural year, the full demand being imposed from the *kharij* harvest.

APPENDIX VIII.

RULES FOR SUSPENSIONS AND REMISSIONS OF REVENUE IN THE INSECURE TRACTS OF THE MIANWALI DISTRICT.

(Settlement Officer, Mianwali's letter No. 1058-G., dated 27th July 1928.)

The insecure tracts fall under two heads:—(1) Collective grazing and *Barani* Assessments in the Bhakkar Thal and the two villages of Mianwali which were transferred from Bhakkar, and (2) the Khudri circle with the exception of four villages, namely, Massan, Nikki, Banni Afghanan and Pir Pihai, and the villages of Sarkia, Masit and Bhut in the Nahri Circle.

As regards (1) the rule sanctioned by the Financial Commissioner in paragraph 11 of his orders on the Assessment Report of the Bhakkar Tahsil and Sadat Miani villages of Mianwali Tahsil is that "Remissions and suspensions of the fixed village demand will be granted by the Deputy Commissioner in accordance with the existing local rules which have hitherto worked well". This local rule was that "Instead of suspending the revenue in bad years and trying to realize it when good years come round, the Collector should be empowered, subject to the control of the Commissioner, to remit in a year of drought or murrain such portion of the maximum demand as he thinks necessary in each village, i.e., there should be remissions and no suspensions."

The following rules should apply to villages under head (2):—

I. The following will be the danger rates in the Khudri circle (Mianwali) and Nahri circle (Isa Khel):—

Class of soil.				RATE PER ACRE OF MATURED CROPS.	
				Khudri Circle.	Nabri Circle.
Chabi, Abi, Naledar and Hail	...	...	...	Rs. 2/2/-	Rs. 2/-
Other Barani	...	...	...	Rs. 1/10/-	Rs. 1/5/-
Nabri	...	...	...	...	Rs. 2/-

II. When the danger rate applied to the area of matured crops of any particular insecure village in any harvest gives the demand fixed for that harvest, no suspension will be necessary.

III. When the danger rate applied to the area of matured crops in a harvest in any village falls short of the demand fixed for that harvest, the question of suspending the whole or a part of the demand should be considered. For this purpose the danger rate should be applied not to the cropped area of that harvest alone, but to total cropped area of that harvest and the preceding one. If the resultant does not fall short of the demand for the two harvests, no suspension need be given. But—

- (a) if the total cropped area of the two harvests multiplied by the danger rates gives a sum less than the total demand of the two harvests, but not less than 75 per cent. of it, $\frac{1}{4}$ th of the demand of the harvest should be suspended ;
- (b) if the sum is less than 75 per cent. but not less than 50 per cent. of the demand of the two harvests, $\frac{1}{2}$ the demand of that harvest should be suspended ; and
- (c) if the sum calculated as above is less than $\frac{1}{2}$ the demand of the two harvests, the whole demand of the harvest should be suspended.

IV. For the recovery of the arrears of suspended revenue, the revenue under suspension should be treated as part of the demand of the current harvest.

V. The above rules should be taken only as guides for the inspecting officer who should however make his proposals after considering all other matters referred to in paragraph 563 (iii) of Land Administration Manual. The question of outturn of crops will, however, have been considered in arriving at the area of matured crops.

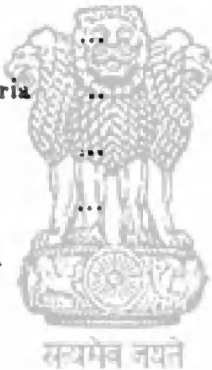
VI. For the convenience of the Revenue Assistant and the Collector, a statement in the annexed form should be prepared every harvest for the insecure villages and sent up by the Patwari after the submission of the crop abstract.

VII. No remission will ordinarily be necessary as a very good year generally follows two or three bad years, and the past experience has shown that in the good years, it is possible to collect all the outstanding arrears. A longer period of drought may, however, necessitate remissions under the ordinary rules.

APPENDIX IX.

STATEMENT SHOWING EXPENDITURE ON SETTLEMENT OPERATIONS IN
TAHSILS BHAKKAR AND MIANWALI AND THE RIVERAIN PORTION
OF ISA KHEL TAHSIL OF THE MIANWALI DISTRICT.

<i>Budget head.</i>					<i>Expenditure.</i>
					Rs.
<i>Pay of Officers—</i>					
Pay	...	...	...	...	38,866
Leave salary	...	...	...	...	...
<i>Pay of establishment—</i>					
Pay of permanent establishment	...	...	...	...	1,34,824
Pay of temporary establishment	...	...	...	...	68,693
Leave salary	...	...	...	...	2,881
<i>Travelling allowance—</i>					
Fixed travelling allowance	...	...	...	...	47,360
Other	...	...	...	...	15,699
Other allowances and honoraria	4,914
Supply and services	3,188
Contingencies	29,537
Total	3,35,962





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